

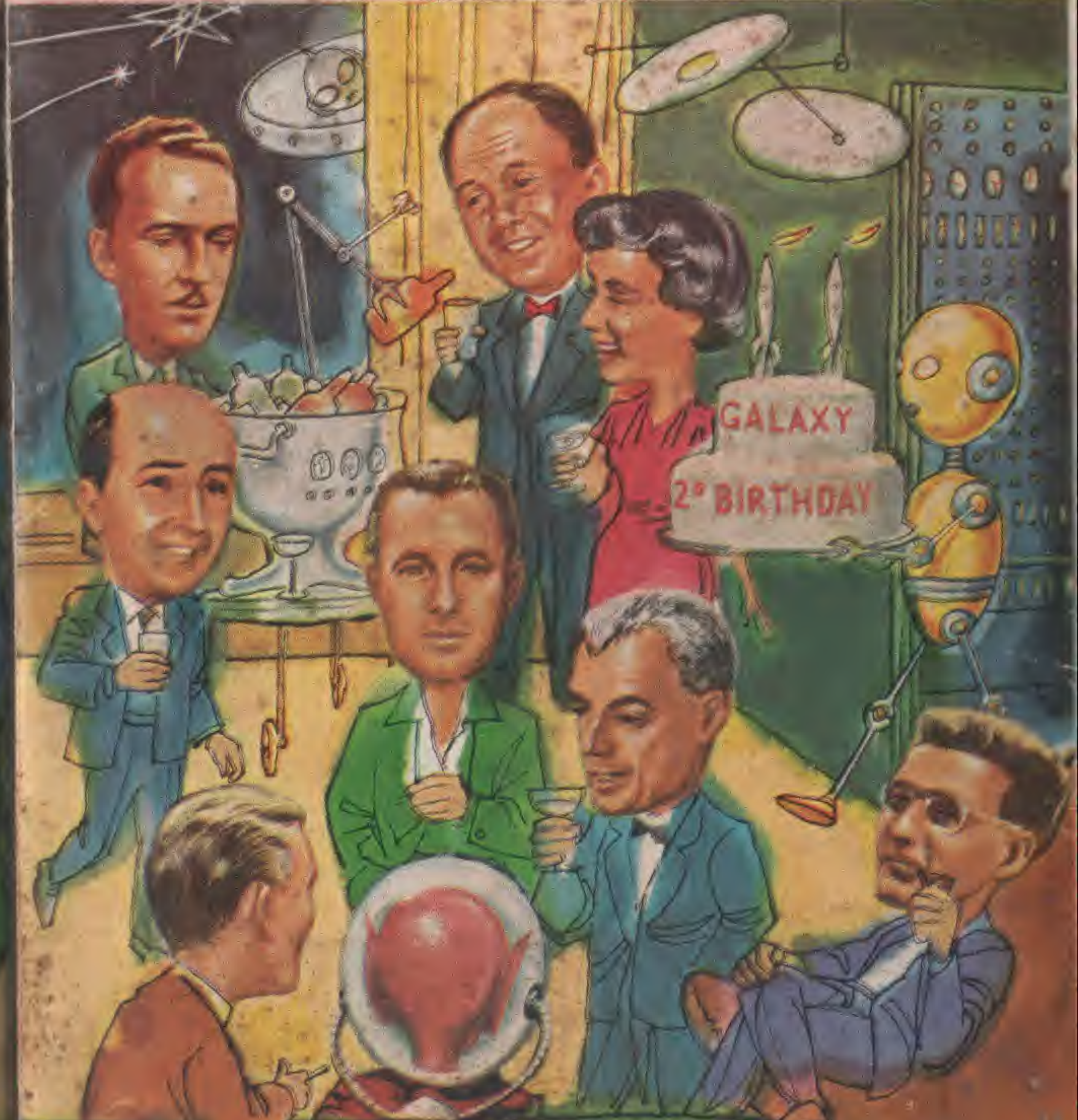
Galaxy

SCIENCE FICTION

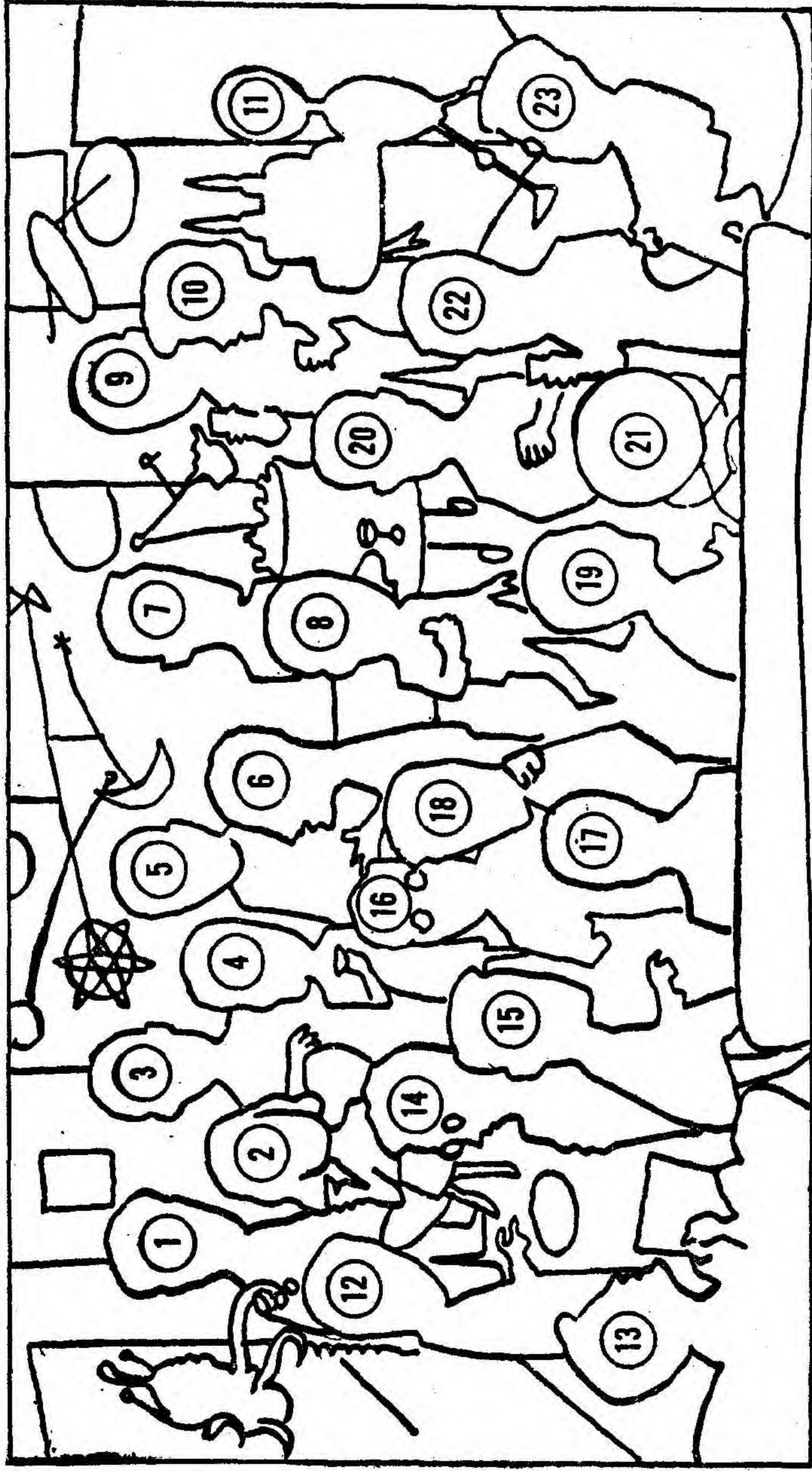
OCTOBER 1952

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THE WORLD OF OCTOBER 2052 By WILLY LEY



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Galaxy

SCIENCE FICTION

ALL ORIGINAL STORIES
NO REPRINTS!

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BIRTHDAY PARTY

GALAXY Science Fiction is published monthly by Galaxy Publishing Corporation. Main offices: 421 Hudson Street, New York 14, N. Y. 35c per copy. Subscriptions: (12 copies) \$3.50 per year in the United States, Canada, Mexico, South and Central America and U.S. Possessions. Elsewhere \$4.50. Entered as second-class matter at the Post Office, New York, N. Y. Copyright, 1952, by Galaxy Publishing Corporation. Robert M. Guinn, president. All rights, including translation, reserved. All material submitted must be accompanied by self-addressed stamped envelopes. The publisher assumes no responsibility for unsolicited material. All stories printed in this magazine are fiction, and any similarity between characters and actual persons is coincidental.

OCTOBER, 1952

Vol. 5, No. 1

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Printed in the U. S. A.
by the Guinn Co., Inc.

Reg. U. S. Pat. Off.

Annual Report to our Readers

The twelvemonth between our first annual report and this, which marks the beginning of our third year, was rammed full of activity for GALAXY. It all boils down to this one astonishing fact, however:

GALAXY has acquired the second largest circulation in science fiction and is pushing hard toward first place.

For a magazine to achieve this record in so short a time is a tribute to its unyielding policy of presenting the highest quality obtainable; to its readers for their loyalty and appreciation; to its authors for helping it maintain those standards and even advance them.

During the turbulent first year of GALAXY's existence, other publishers thought the idea of offering mature science fiction in attractive, adult format was downright funny. They knew what sold—shapely female endomorphs with bronze bras, embattled male mesomorphs clad in muscle, and frightful alien monsters in search of a human meal.

Even our former publisher became infected with that attitude, and the resulting internal conflicts were no joke at all. But now:

- We have the biggest promotion campaign mapped out that any science fiction magazine has ever had.
- We are working out the broadest circulation possible. Note that we reach the stands regularly on the second Friday of each month. (Subscribers, however, get their copies at least five to ten days before.)
- Better printing, paper and reproduction of art lie ahead.
- These new art techniques I mentioned in the past are on their way. They were stubborn things to conquer, but you'll be seeing them soon.
- If you want to find WILLY LEY in a science fiction magazine henceforth, you'll have to buy GALAXY. As our science editor, he will work exclusively for us in this field.
- Last and by far the most important, the literary quality of GALAXY will continue to be a rising curve—as steeply rising as we can manage.

Coming up, for example:

- November: THE MARTIAN WAY by Isaac Asimov, a novella that introduces problems and situations in space travel that I have never seen before.
- December: RING AROUND THE SUN by Clifford D. Simak is a powerful new serial with a startling theme and one surprising development after another.
- March: After the conclusion of the Simak serial, we have THE OLD DIE RICH by a chap named Gold. Naturally, the story was read by impartial critics—no writer can judge his own work—and they report it's GALAXY quality. I hope you'll agree with them.

Yes, it's been a fine year. Next year looks even better.

—H. L. GOLD



GUNNER CADE—

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the expert's taste

"GUNNER CADE is surely one of the most exciting of science fiction stories." That's how John W. Campbell, Jr., dean of s-f editors, describes this new novel by Cyril Judd. He also calls it "an ingenious, chilling, and thoroughly plausible account of the ways in which a new human society could be built by subtle and not-so-subtle twistings of our present culture."

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(A further clue to the merits of GUNNER CADE: It's an open secret that "Cyril Judd" is a pen name for two of the most talented and rewarding of the younger, or very-up-and-coming s-f writers: C. M. Kornbluth and Judith Merril.)

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BABY

By THEODORE STURGEON



GALAXY SCIENCE FICTION

IS THREE

Gerard's problem would dismay any psychotherapist. He knew his name without knowing his identity; what he did, but not what he was. Worse yet, he didn't know how many of him there were!



Illustrated by
DON SIBLEY

I FINALLY got in to see this Stern. He wasn't an old man at all. He looked up from his desk, flicked his eyes over me once, and picked up a pencil. "Sit over there, Sonny."

I stood where I was until he looked up again. Then I said, "Look, if a midget walks in here, what do you say—sit over there, Shorty?"

He put the pencil down again and stood up. He smiled. His smile was as quick and sharp as his eyes. "I was wrong," he said, "but how am I supposed to know you don't want to be called Sonny?"

That was better, but I was still mad. "I'm fifteen and I don't have to like it. Don't rub my nose in it."

He smiled again and said okay, and I went and sat down.

"What's your name?"

"Gerard."

"First or last?"

"Both," I said.

"Is that the truth?"

I said, "No. And don't ask me where I live either."

He put down his pencil. "We're not going to get very far this way."

"That's up to you. What are you worried about? I got feelings of hostility? Well, sure I have. I got lots more things than that wrong with me or I wouldn't be here. Are you going to let that stop you?"

"Well, no, but—"

"So what else is bothering you? How you're going to get paid?" I took out a thousand-dollar bill and laid it on the desk. "That's so you won't have to bill me. You keep track of it. Tell me when it's used up and I'll give you more. So you don't need my address. Wait," I said, when he reached toward the money. "Let it lay there. I want to be sure you and I are going to get along."

HE folded his hands. "I don't do business this way, Son—I mean, Gerard."

"Gerry," I told him. "You do, if you do business with me."

"You make things difficult, don't you? Where did you get a thousand dollars?"

"I won a contest. Twenty-five words or less about how much fun it is to do my daintier underthings with Sudso." I leaned forward. "This time it's the truth."

"All right," he said.

I was surprised. I think he knew it, but he didn't say anything more. Just waited for me to go ahead.

"Before we start—if we start," I said, "I got to know something. The things I say to you—what comes out while you're working on me—is that just between us, like a priest or a lawyer?"

"Absolutely," he said.

"No matter what?"

"No matter what."

I watched him when he said it. I believed him.

"Pick up your money," I said. "You're on."

He didn't do it. He said, "As you remarked a minute ago, that is up to me. You can't buy these treatments like a candy bar. We have to work together. If either one of us can't do that, it's useless. You can't walk in on the first psychotherapist you find in the phone book and make any demand that occurs to you just because you can pay for it."

I said tiredly, "I didn't get you out of the phone book and I'm not just guessing that you can help me. I winnowed through a dozen or more head-shrinkers before I decided on you."

"Thanks," he said, and it looked as if he was going to laugh at me, which I never like. "Winnowed, did you say? Just how?"

"Things you hear, things you

read. You know. I'm not saying, so just file that with my street address."

He looked at me for a long time. It was the first time he'd used those eyes on me for anything but a flash glance. Then he picked up the bill.

"What do I do first?" I demanded.

"What do you mean?"

"How do we start?"

"We started when you walked in here."

So then I had to laugh. "All right, you got me. All I had was an opening. I didn't know where you would go from there, so I couldn't be there ahead of you."

"That's very interesting," Stern said. "Do you usually figure everything out in advance?"

"Always."

"How often are you right?"

"All the time. Except—but I don't have to tell you about no exceptions."

He really grinned this time. "I see. One of my patients has been talking."

"One of your ex-patients. Your patients don't talk."

"I ask them not to. That applies to you, too. What did you hear?"

"That you know from what people say and do what they're about to say and do, and that sometimes you let 'em do it and sometimes you don't. How did

you learn to do that?"

He thought a minute. "I guess I was born with an eye for details, and then let myself make enough mistakes with enough people until I learned not to make too many more. How did you learn to do it?"

I said, "You answer that and I won't have to come back here."

"You really don't know?"

"I wish I did. Look, this isn't getting us anywhere, is it?"

He shrugged. "Depends on where you want to go." He paused, and I got the eyes full strength again. "Which thumbnail description of psychiatry do you believe at the moment?"

"I don't get you."

STERN slid open a desk drawer and took out a blackened pipe. He smelled it, turned it over while looking at me. "Psychiatry attacks the onion of the self, removing layer after layer until it gets down to the little sliver of unsullied ego. Or: psychiatry drills like an oil well, down and sidewise and down again, through all the muck and rock, until it strikes a layer that yields. Or: psychiatry grabs a handful of sexual motivations and throws them on the pinball-machine of your life, so they bounce on down against episodes. Want more?"

I had to laugh. "That last one was pretty good."

"That last one was pretty bad. They are all bad. They all try to simplify something which is complex by its very nature. The only thumbnail you'll get from me is this: no one knows what's really wrong with you but you; no one can find a cure for it but you; no one but you can identify it as a cure; and once you find it, no one but you can do anything about it."

"What are you here for?"

"To listen."

"I don't have to pay somebody no day's wage every hour just to listen."

"True. But you're convinced that I listen selectively."

"Am I?" I wondered about it.

"I guess I am. Well, don't you?"

"No, but you'll never believe that."

I laughed. He asked me what that was for. I said, "You're not calling me Sonny."

"Not you." He shook his head slowly. He was watching me while he did it, so his eyes slid in their sockets as his head moved. "What is it you want to know about yourself, that made you worried I might tell people?"

"I want to find out why I killed somebody," I said right away.

It didn't faze him a bit. "Lie down over there."

I got up. "On that couch?"

He nodded.

As I stretched out self-con-

sciously, I said, "I feel like I'm in some damn cartoon."

"What cartoon?"

"Guy's built like a bunch of grapes," I said, looking at the ceiling. It was pale gray.

"What's the caption?"

" 'I got trunks full of 'em'."

"Very good," he said quietly.

I looked at him carefully. I knew then he was the kind of guy who laughs way down deep when he laughs at all.

He said, "I'll use that in a book of case histories some time. But it won't include yours. What made you throw that in?" When I didn't answer, he got up and moved to a chair behind me where I couldn't see him. "You can quit testing, Sonny. I'm good enough for your purposes."

I clenched my jaw so hard, my back teeth hurt. Then I relaxed. I relaxed all over. It was wonderful. "All right," I said, "I'm sorry." He didn't say anything, but I had that feeling again that he was laughing. Not at me, though.

"How old are you?" he asked me suddenly.

"Uh—fifteen."

"Uh—fifteen," he repeated.

"What does the 'uh' mean?"

"Nothing. I'm fifteen."

"When I asked your age, you hesitated because some other number popped up. You discarded that and substituted 'fifteen.' "

"The hell I did! I am fifteen!"

"I didn't say you weren't." His voice came patiently. "Now what was the other number?"

I got mad again. "There wasn't any other number! What do you want to go pryin' my grunts apart for, trying to plant this and that and make it mean what you think it ought to mean?"

He was silent.

"I'm fifteen," I said defiantly, and then, "I don't like being only fifteen. You know that. I'm not trying to insist I'm fifteen."

He just waited, still not saying anything.

I felt defeated. "The number was eight."

"So you're eight. And your name?"

"Gerry." I got up on one elbow, twisting my neck around so I could see him. He had his pipe apart and was sighting through the stem at the desk lamp. "Gerry, without no 'uh!'"

"All right," he said mildly, making me feel real foolish.

I leaned back and closed my eyes.

Eight, I thought. Eight.

"It's cold in here," I complained.

Eight. Eight, plate, state, hate. I ate from the plate of the state and I hate. I didn't like any of that and I snapped my eyes open. The ceiling was still gray. It was all right. Stern was somewhere

behind me with his pipe, and he was all right. I took two deep breaths, three, and then let my eyes close. Eight. Eight years old. Eight, hate. Years, fears. Old, cold. *Damn* it! I twisted and twitched on the couch, trying to find a way to keep the cold out. I ate from the plate of the—

I GRUNTED and with my mind I took all the eights and all the rhymes and everything they stood for, and made it all black. But it wouldn't stay black. I had to put something there, so I made a great big luminous figure eight and just let it hang there. But it turned on its side and inside the loops it began to shimmer. It was like one of those movie shots through binoculars. I was going to have to look through whether I liked it or not.

Suddenly I quit fighting it and let it wash over me. The binoculars came close, closer, and then I was there.

Eight. Eight years old, cold. Cold as a bitch in the ditch. The ditch was by a railroad. Last year's weeds were scratchy straw. The ground was red, and when it wasn't slippery, clingy mud, it was frozen hard like a flowerpot. It was hard like that now, dusted with hoar-frost, cold as the winter light that pushed up over the hills. At night the lights were

warm, and they were all in other people's houses. In the daytime the sun was in somebody else's house too, for all the good it did me.

I was dying in that ditch. Last night it was as good a place as any to sleep, and this morning it was as good a place as any to die. Just as well. Eight years old, the sick-sweet taste of pork-fat and wet bread from somebody's garbage, the thrill of terror when you're stealing a gunnysack and you hear a footstep.

And I heard a footstep.

I'd been curled up on my side. I whipped over on my stomach because sometimes they kick your belly. I covered my head with my arms and that was as far as I could get.

After a while I rolled my eyes up and looked without moving. There was a big shoe there. There was an ankle in the shoe, and another shoe close by. I lay there waiting to get tromped. Not that I cared much any more, but it was such a damn shame. All these months on my own, and they'd never caught up with me, never even come close, and now this. It was such a shame I started to cry.

The shoe took me under the armpit, but it was not a kick. It rolled me over. I was so stiff from the cold, I went over like a plank. I just kept my arms over

my face and head and lay there with my eyes closed. For some reason I stopped crying. I think people only cry when there's a chance of getting help from somewhere.

When nothing happened, I opened my eyes and shifted my forearms a little so I could see up. There was a man standing over me and he was a mile high. He had on faded dungarees and an old Eisenhower jacket with deep sweat-stains under the arms. His face was shaggy, like the guys who can't grow what you could call a beard, but still don't shave.

He said, "Get up."

I looked down at his shoe, but he wasn't going to kick me. I pushed up a little and almost fell down again, except he put his big hand where my back would hit it. I lay against it for a second because I had to, and then got up to where I had one knee on the ground.

"Come on," he said. "Let's go."

I swear I felt my bones creak, but I made it. I brought a round white stone up with me as I stood. I hefted the stone. I had to look at it to see if I was really holding it, my fingers were that cold. I told him, "Stay away from me or I'll bust you in the teeth with this rock."

His hand came out and down so fast, I never saw the way he got one finger between my palm

and the rock, and flicked it out of my grasp. I started to cuss at him, but he just turned his back and walked up the embankment toward the tracks. He put his chin on his shoulder and said, "Come on, will you?"

HE didn't chase me, so I didn't run. He didn't talk to me, so I didn't argue. He didn't hit me, so I didn't get mad. I went along after him. He waited for me. He put out his hand to me and I spit at it. So he went on, up to the tracks, out of my sight. I clawed my way up. The blood was beginning to move in my hands and feet and they felt like four point-down porcupines. When I got up to the roadbed, the man was standing there waiting for me.

The track was level just there, but as I turned my head to look along it, it seemed to be a hill that was steeper and steeper and turned over above me. And next thing you know, I was lying flat on my back looking up at the cold sky.

The man came over and sat down on the rail near me. He didn't try to touch me. I gasped for breath a couple of times, and suddenly felt I'd be all right if I could sleep for a minute—just a little minute. I closed my eyes. The man stuck his finger in my ribs, hard. It hurt.

"Don't sleep," he said.

I looked at him.

He said, "You're frozen stiff and weak with hunger. I want to take you home and get you warmed up and fed. But it's a long haul up that way, and you won't make it by yourself. If I carry you, will that be the same to you as if you walked it?"

"What are you going to do when you get me home?"

"I told you."

"All right," I said.

He picked me up and carried me down the track. If he'd said anything else in the world, I'd of laid right down where I was until I froze to death. Anyway, what did he want to ask me for, one way or the other? I couldn't of done anything.

I stopped thinking about it and dozed off.

I woke up once when he turned off the right of way. He dove into the woods. There was no path, but he seemed to know where he was going. The next time I woke from a crackling noise. He was carrying me over a frozen pond and the ice was giving under his feet. He didn't hurry. I looked down and saw the white cracks raying out under his feet, and it didn't seem to matter a bit. I bleared off again.

He put me down at last. We were there. "There" was inside a room. It was very warm. He put

me on my feet and I snapped out of it in a hurry. The first thing I looked for was the door. I saw it and jumped over there and put my back against the wall beside it, in case I wanted to leave. Then I looked around.

It was a big room. One wall was rough rock and the rest was logs with stuff shoved between them. There was a big fire going in the rock wall, not in a fireplace, exactly; it was a sort of hollow place. There was an old auto battery on a shelf opposite, with two yellowing electric light bulbs dangling by wires from it. There was a table, some boxes and a couple of three-legged stools. The air had a haze of smoke and such a wonderful, heartbreaking, candy-and-crackling smell of food that a little hose squirted inside my mouth.

The man said. "What have I got here, Baby?"

And the room was full of kids. Well, three of them, but somehow they seemed to be more than three kids. There was a girl about my age—eight, I mean—with blue paint on the side of her face. She had an easel and a palette with lots of paints and a fistful of brushes, but she wasn't using the brushes. She was smearing the paint on with her hands. Then there was a little Negro girl about five with great big eyes who stood gaping at me. And in

a wooden crate, set up on two sawhorses to make a kind of bassinet, was a baby. I guess about three or four months old. It did what babies do, drooling some, making small bubbles, waving its hands around very aimless, and kicking.

WHEN the man spoke, the girl at the easel looked at me and then at the baby. The baby just kicked and drooled.

The girl said, "His name's Gerry. He's mad."

"What's he mad at?" the man asked. He was looking at the baby.

"Everything," said the girl. "Everything and everybody."

"Where'd he come from?"

I said, "Hey, what is this?" but nobody paid any attention. The man kept asking questions at the baby and the girl kept answering. Craziest thing I ever saw.

"He ran away from a state school," the girl said. "They fed him enough, but no one blesshed with him."

That's what she said—"blesshed."

I opened the door then and cold air hooted in. "You louse," I said to the man, "you're from the school."

"Close the door, Janie," said the man. The girl at the easel didn't move, but the door banged shut behind me. I tried to open

it and it wouldn't move. I let out a howl, yanking at it.

"I think you ought to stand in the corner," said the man. "Stand him in the corner, Janie."

Janie looked at me. One of the three-legged stools sailed across to me. It hung in midair and turned on its side. It nudged me with its flat seat. I jumped back and it came after me. I dodged to the side, and that was the corner. The stool came on. I tried to bat it down and just hurt my hand. I ducked and it went lower than I did. I put one hand on it and tried to vault over it, but it just fell and so did I. I got up again and stood in the corner, trembling. The stool turned right side up and sank to the floor in front of me.

The man said, "Thank you, Janie." He turned to me. "Stand there and be quiet, you. I'll get to you later. You shouldn'ta kicked up all that fuss." And then, to the baby, he said, "He got anything we need?"

And again it was the little girl who answered. She said, "Sure. He's the one."

"Well," said the man. "What do you know!" He came over. "Gerry, you can live here. I don't come from the school. I'll never turn you in."

"Yeah, huh?"

"He hates you," said Janie.

"What am I supposed to do

about that?" he wanted to know.

Janie turned her head to look into the bassinet. "Feed him." The man nodded and began fiddling around the fire.

Meanwhile, the little Negro girl had been standing in the one spot with her big eyes right out on her cheekbones, looking at me. Janie went back to her painting and the baby just lay there same as always, so I stared right back at the little Negro girl. I snapped, "What the devil are you gawking at?"

She grinned at me. "Gerry ho-ho," she said, and disappeared. I mean she really disappeared, went out like a light, leaving her clothes where she had been. Her little dress billowed in the air and fell in a heap where she had been, and that was that. She was gone.

"Gerry hee-hee," I heard. I looked up, and there she was, stark naked, wedged in a space where a little outcropping on the rock wall stuck out just below the ceiling. The second I saw her she disappeared again.

"Gerry hó-ho," she said. Now she was on top of the row of boxes they used as storage shelves, over on the other side of the room.

"Gerry hee-hee!" Now she was under the table. "Gerry ho-ho!" This time she was right in the corner with me, crowding me.

I yelped and tried to get out of the way and bumped the stool. I was afraid of it, so I shrank back again and the little girl was gone.

The man glanced over his shoulder from where he was

working at the fire. "Cut it out, you kids," he said.

THERE was a silence, and then the girl came slowly out from the bottom row of shelves. She walked across to her dress





and put it on.

"How did you do that?" I wanted to know.

"Ho-ho," she said.

Janie said, "It's easy. She's really twins."

"Oh," I said. Then another girl, exactly the same, came from somewhere in the shadows and stood beside the first. They were identical. They stood side by side and stared at me. This time I let them stare.

"That's Bonnie and Beanie," said the painter. "This is Baby and that—" she indicated the man—"that's Lone. And I'm Janie."

I couldn't think of what to say, so I said, "Yeah."

Lone said, "Water, Janie." He held up a pot. I heard water trickling, but didn't see anything. "That's enough," he said, and hung the pot on a crane. He picked up a cracked china plate and brought it over to me. It was full of stew with great big lumps of meat in it, and thick gravy and dumplings and carrots. "Here, Gerry. Sit down."

I looked at the stool. "On that?"

"Sure."

"Not me," I said. I took the plate and hunkered down against the wall.

"Hey," he said after a time. "Take it easy. We've all had chow. No one's going to snatch it

away from you. Slow down!"

I ate even faster than before. I was almost finished when I threw it all up. Then for some reason my head hit the edge of the stool. I dropped the plate and spoon and slumped there. I felt real bad.

Lone came over and looked at me. "Sorry, kid," he said. "Clean up, will you, Janie?"

Right in front of my eyes, the mess on the floor disappeared. I didn't care about that or anything else just then. I felt the man's hand on the side of my neck. Then he tousled my hair.

"Beanie, get him a blanket. Let's all go to sleep. He ought to rest a while."

I felt the blanket go around me, and I think I was asleep before he put me down.

I don't know how much later it was when I woke up. I didn't know where I was and that scared me. I raised my head and saw the dull glow of the embers in the fireplace. Lone was stretched out on it in his clothes. Janie's easel stood in the reddish blackness like some great preying insect. I saw the baby's head pop up out of the bassinet, but I couldn't tell whether he was looking straight at me or away. Janie was lying on the floor near the door and the twins were on the old table. Nothing moved except the baby's head, bobbing a little.

I got to my feet and looked around the room. Just a room, only the one door. I tiptoed toward it. When I passed Janie, she opened her eyes.

"What's the matter?" she whispered.

"None of your business," I told her. I went to the door as if I didn't care, but I watched her. She didn't do anything. The door was as solid tight closed as when I'd tried it before.

I went back to Janie. She just looked up at me. She wasn't scared. I told her, "I got to go to the john."

"Oh," she said. "Why'n't you say so?"

Suddenly I grunted and grabbed my guts. The feeling I had I can't begin to talk about. I acted as if it was a pain, but it wasn't. It was like nothing else that ever happened to me before.

"Okay," Janie said. "Go on back to bed."

"But I got to—"

"You got to what?"

"Nothing." It was true. I didn't have to go no place.

"Next time tell me right away. I don't mind."

I didn't say anything. I went back to my blanket.

"THAT'S all?" said Stern. I lay on the couch and looked up at the gray ceiling. He asked, "How old are you?"

"Fifteen," I said dreamily. He waited until, for me, the gray ceiling acquired walls and a floor, a rug and lamps and a desk and a chair with Stern in it. I sat up and held my head a second, and then I looked at him. He was fooling with his pipe and looking at me. "What did you do to me?"

"I told you. I don't do anything here. You do it."

"You hypnotized me."

"I did not." His voice was quiet, but he really meant it.

"What was all that, then? It was . . . it was like it was happening for real all over again."

"Feel anything?"

"Everything." I shuddered. "Every damn thing. What was it?"

"Anyone doing it feels better afterward. You can go over it all again now any time you want to, and every time you do, the hurt in it will be less. You'll see."

It was the first thing to amaze me in years. I chewed on it and then asked, "If I did it by myself, how come it never happened before?"

"It needs someone to listen."

"Listen? Was I talking?"

"A blue streak."

"Everything that happened?"

"How can I know? I wasn't there. You were."

"You don't believe it happened, do you? Those disappearing kids and the footstool and all?"

He shrugged. "I'm not in the business of believing or not believing. Was it real to you?"

"Oh, hell, yes!"

"Well, then, that's all that matters. Is that where you live, with those people?"

I bit off a fingernail that had been bothering me. "Not for a long time. Not since Baby was three." I looked at him. "You remind me of Lone."

"Why?"

"I don't know. No, you don't," I added suddenly. "I don't know what made me say that." I lay down abruptly.

The ceiling was gray and the lamps were dim. I heard the pipe-stem click against his teeth. I lay there for a long time.

"Nothing happens," I told him.

"What did you expect to happen?"

"Like before."

"There's something there that wants out. Just let it come."

It was as if there was a revolving drum in my head, and on it were photographed the places and things and people I was after. And it was as if the drum was spinning very fast, so fast I couldn't tell one picture from another. I made it stop, and it stopped at a blank segment. I spun it again, and stopped it again.

"Nothing happens," I said.

"Baby is three," he repeated.

"Oh," I said. "That." I closed my eyes.

That might be it. Might, sight, night, light. I might have the sight of a light in the night. Maybe the baby. Maybe the sight of the baby at night because of the light . . .

THERE was night after night when I lay on that blanket, and a lot of nights I didn't. Something was going on all the time in Lone's house. Sometimes I slept in the daytime. I guess the only time everybody slept at once was when someone was sick, like me the first time I arrived there. It was always sort of dark in the room, the same night and day, the fire going, the two old bulbs hanging yellow by their wires from the battery. When they got too dim, Janie fixed the battery and they got bright again.

Janie did everything that needed doing, whatever no one else felt like doing. Everybody else did things, too. Lone was out a lot. Sometimes he used the twins to help him, but you never missed them, because they'd be here and gone and back again *bing!* like that. And Baby, he just stayed in his bassinet.

I did things myself. I cut wood for the fire and I put up more shelves, and then I'd go swimming with Janie and the twins sometimes. And I talked to Lone.

I didn't do a thing that the others couldn't do, but they all did things I couldn't do. I was mad, mad all the time about that. But I wouldn't of known what to do with myself if I wasn't mad all the time about something or other. It didn't keep us from bleshing. Bleshing, that was Janie's word. She said Baby told it to her. She said it meant everyone all together being something, even if they all did different things. Two arms, two legs, one body, one head, all working together, although a head can't walk and arms can't think. Lone said maybe it was a mixture of "blending" and "meshing," but I don't think he believed that himself. It was a lot more than that.

Baby talked all the time. He was like a broadcasting station that runs twenty-four hours a day, and you can get what it's sending any time you tune in, but it'll keep sending whether you tune in or not. When I say he talked, I don't mean exactly that. He semaphored mostly. You'd think those wandering, vague movements of his hands and arms and legs and head were meaningless, but they weren't. It was semaphore, only instead of a symbol for a sound, or such like, the movements were whole thoughts.

I mean spread the left hand and shake the right high up, and thump with the left heel, and it

means, "Anyone who thinks a starling is a pest just don't know anything about how a starling thinks" or something like that.

Lone couldn't read the stuff and neither could I. The twins could, but they didn't give a damn. Janie used to watch him all the time. He always knew what you meant if you wanted to ask him something, and he'd tell Janie and she'd say what it was. Part of it, anyway. Nobody could get it all, not even Janie. Lone once told me that all babies know that semaphore. But when nobody receives it, they quit doing it and pretty soon they forget. They *almost* forget. There's always some left. That's why certain gestures are funny the world over, and certain others make you mad. But like everything else Lone said, I don't know whether he believed it or not.

All I know is Janie would sit there and paint her pictures and watch Baby, and sometimes she'd bust out laughing, and sometimes she'd get the twins and make them watch and they'd laugh, too, or they'd wait till he was finished what he was saying and then they'd creep off to a corner and whisper to each other about it. Baby never grew any. Janie did, and the twins, and so did I, but not Baby. He just lay there.

Janie kept his stomach full and cleaned him up every two or three

days. He didn't cry and he didn't make any trouble. No one ever went near him.

JANIE showed every picture she painted to Baby, before she cleaned the boards and painted new ones. She had to clean them because she only had three of them. It was a good thing, too, because I'd hate to think what that place would of been like if she'd kept them all; she did four or five a day. Lone and the twins were kept hopping getting turpentine for her. She could shift the paints back into the little pots on her easel without any trouble, just by looking at the picture one color at a time, but turps was something else again. She told me that Baby remembered all her pictures and that's why she didn't have to keep them. They were all pictures of machines and gear-trains and mechanical linkages and what looked like electric circuits and things like that. I never thought too much about them.

I went out with Lone to get some turpentine and a couple of picnic hams, one time. We went through the woods to the railroad track and down a couple of miles to where we could see the glow of a town. Then the woods again, and some alleys, and a back street.

Lone was like always, walking

along, thinking, thinking.

We came to a hardware store and he went up and looked at the lock and came back to where I was waiting, shaking his head. Then we found a general store. Lone grunted and we went and stood in the shadows by the door. I looked in.

All of a sudden, Beanie was in there, naked like she always was when she traveled like that. She came and opened the door from the inside. We went in and Lone closed it and locked it.

"Get along home, Beanie," he said, "before you catch your death."

She grinned at me and said, "Ho-ho," and disappeared.

We found a pair of fine hams and a two-gallon can of turpentine. I took a bright yellow ballpoint pen and Lone cuffed me and made me put it back.

"We only take what we need," he told me.

After we left, Beanie came back and locked the door and went home again. I only went with Lone a few times, when he had more to get than he could carry easily.

I was there about three years. That's all I can remember about it. Lone was there or he was out, and you could hardly tell the difference. The twins were with each other most of the time. I got to like Janie a lot, but we

never talked much. Baby talked all the time, only I don't know what about.

We were all busy and we bled.

I SAT up on the couch suddenly.

Stern said, "What's the matter?"

"Nothing's the matter. This isn't getting me any place."

"You said that when you'd barely started. Do you think you've accomplished anything since then?"

"Oh, yeah, but—"

"Then how can you be sure you're right this time?" When I didn't say anything, he asked me, "Didn't you like this last stretch?"

I said angrily, "I didn't like or not like. It didn't mean nothing. It was just—just talk."

"So what was the difference between this last session and what happened before?"

"My gosh, plenty! The first one, I felt everything. It was all really happening to me. But this time—nothing."

"Why do you suppose that was?"

"I don't know. You tell me."

"Suppose," he said thoughtfully, "that there was some episode so unpleasant to you that you wouldn't dare relive it."

"Unpleasant? You think freez-

ing to death isn't unpleasant?"

"There are all kinds of unpleasantness. Sometimes the very thing you're looking for—the thing that'll clear up your trouble—is so revolting to you that you won't go near it. Or you try to hide it. Wait," he said suddenly, "maybe 'revolting' and 'unpleasant' are inaccurate words to use. It might be something very desirable to you. It's just that you don't want to get straightened out."

"I want to get straightened out."

He waited as if he had to clear something up in his mind, and then said, "There's something in that 'Baby is three' phrase that bounces you away. Why is that?"

"Damn if I know."

"Who said it?"

"I dunno . . . uh . . ."

He grinned. "Uh?"

I grinned back at him. "I said it."

"Okay. When?"

I quit grinning. He leaned forward, then got up.

"What's the matter?" I asked.

"I didn't think anyone could be that mad." I didn't say anything. He went over to his desk. "You don't want to go on any more, do you?"

"No."

"Suppose I told you you want to quit because you're right on the very edge of finding out what you want to know?"

"Why don't you tell me and see what I do?"

He just shook his head. "I'm not telling you anything. Go on, leave if you want to. I'll give you back your change."

"How many people quit just when they're on top of the answer?"

"Quite a few."

"Well, I ain't going to." I lay down.

He didn't laugh and he didn't say, "Good," and he didn't make any fuss about it. He just picked up his phone and said, "Cancel everything for this afternoon," and went back to his chair, up there out of my sight.

IT was very quiet in there. He had the place soundproofed.

I said, "Why do you suppose Lone let me live there so long when I couldn't do any of the things that the other kids could?"

"Maybe you could."

"Oh, no," I said positively. "I used to try. I was strong for a kid my age and I knew how to keep my mouth shut, but aside from those two things I don't think I was any different from any kid. I don't think I'm any different right now, except what difference there might be from living with Lone and his bunch."

"Has this anything to do with 'Baby is three'?"

I looked up at the gray ceiling.

"Baby is three. Baby is three. I went up to a big house with a winding drive that ran under a sort of theater-marquee thing. Baby is three. Baby . . ."

"How old are you?"

"Thirty-three," I said, and the next thing you know I was up off that couch like it was hot, and heading for the door.

"Don't be foolish," Stern said. "Want me to waste a whole afternoon?"

"What's that to me? I'm paying for it."

"All right, it's up to you."

I went back. "I don't like any part of this," I said.

"Good. We're getting warm then."

"What made me say 'Thirty-three?' I ain't thirty-three. I'm fifteen. And another thing . . ."

"Yes?"

"It's about that. 'Baby is three.' It's me saying it, all right. But when I think about it—it's not my voice."

"Like thirty-three's not your age?"

"Yeah," I whispered.

"Gerry," he said warmly, "there's nothing to be afraid of."

I REALIZED I was breathing too hard. I pulled myself together. I said, "I don't like remembering saying things in somebody else's voice."

"Look," he told me. "This

head-shrinking business, as you called it a while back, isn't what most people think. When I go with you into the world of your mind—or when you go yourself, for that matter—what we find isn't so very different from the so-called real world. It seems so at first, because the patient comes out with all sorts of fantasies and irrationalities and weird experiences. But everyone lives in that kind of world. When one of the ancients coined the phrase 'truth is stranger than fiction,' he was talking about that.

"Everywhere we go, everything we do, we're surrounded by symbols, by things so familiar we don't ever look at them or don't see them if we do look. If anyone ever could report to you exactly what he saw and thought while walking ten feet down the street, you'd get the most twisted, clouded, partial picture you ever ran across. And nobody ever looks at what's around him with any kind of attention until he gets into a place like this. The fact that he's looking at past events doesn't matter; what counts is that he's seeing clearer than he ever could before, just because, for once, he's trying.

"Now—about this 'thirty-three' business. I don't think a man could get a nastier shock than to find he has someone else's memories. The ego is too important to

let slide that way. But consider: all your thinking is done in code and you have the key to only about a tenth of it. So you run into a stretch of code which is abhorrent to you. Can't you see that the only way you'll find the key to it is to stop avoiding it?"

"You mean I'd started to remember with . . . with somebody else's mind?"

"It looked like that to you for a while, which means something. Let's try to find out what."

"All right." I felt sick. I felt tired. And I suddenly realized that being sick and being tired was a way of trying to get out of it.

"Baby is three," he said.

Baby is maybe. Me, three, thirty-three, me, you Kew you.

"Kew!" I yelled. Stern didn't say anything. "Look, I don't know why, but I think I know how to get to this, and this isn't the way. Do you mind if I try something else?"

"You're the doctor," he said.

I had to laugh. Then I closed my eyes.

THERE, through the edges of the hedges, the ledges and wedges of windows were shouldering up to the sky. The lawns were sprayed-on green, neat and clean, and all the flowers looked as if they were afraid to let their petals break and be untidy.

I walked up the drive in my shoes. I'd had to wear shoes and my feet couldn't breathe. I didn't want to go to the house, but I had to.

I went up the steps between the big white columns and looked at the door. I wished I could see through it, but it was too white and thick. There was a window the shape of a fan over it, too high up, though, and a window on each side of it, but they were all crudded up with colored glass. I hit on the door with my hand and left dirt on it.

Nothing happened, so I hit it again. It got snatched open and a tall, thin colored woman stood there. "What you want?"

I said I had to see Miss Kew.

"Well, Miss Kew don't want to see the likes of you," she said. She talked too loud. "You got a dirty face."

I started to get mad then. I was already pretty sore about having to come here, walking around near people in the daytime and all. I said, "My face ain't got nothin' to do with it. Where's Miss Kew? Go on, find her for me."

She gasped. "You can't speak to me like that!"

I said, "I didn't want to speak to you like any way. Let me in." I started wishing for Janie. Janie could of moved her. But I had to handle it by myself. I wasn't do-

ing so hot, either. She slammed the door before I could so much as curse at her.

So I started kicking on the door. For that, shoes are great. After a while, she snatched the door open again so sudden I almost went on my can. She had a broom with her. She screamed at me, "You get away from here, you trash, or I'll call the police!" She pushed me and I fell.

I got up off the porch floor and went for her. She stepped back and whupped me one with the broom as I went past, but anyhow I was inside now. The woman was making little shrieking noises and coming for me. I took the broom away from her and then somebody said, "Miriam!" in a voice like a grown goose.

I froze and the woman went into hysterics. "Oh, Miss Kew, look out! He'll kill us all. Get the police. Get the—"

"Miriam!" came the honk, and Miriam dried up.

There at the top of the stairs was this prune-faced woman with a dress on that had lace on it. She looked a lot older than she was, maybe because she held her mouth so tight. I guess she was about thirty-three—*thirty-three*. She had mean eyes and a small nose.

I asked, "Are you Miss Kew?"

"I am. What is the meaning of this invasion?"

"I got to talk to you, Miss Kew."

"Don't say 'got to.' Stand up straight and speak out."

The maid said, "I'll get the police."

Miss Kew turned on her. "There's time enough for that, Miriam. Now, you dirty little boy, what do you want?"

"I got to speak to you by yourself," I told her.

"Don't you let him do it, Miss Kew," cried the maid.

"Be quiet, Miriam. Little boy, I told you not to say 'Got to.' You may say whatever you have to say in front of Miriam."

"Like hell." They both gasped. I said, "Lone told me not to."

"Miss Kew, are you goin' to let him—"

"Be quiet, Miriam! Young man, you will keep a civil—" Then her eyes popped up real round. "*Who* did you say . . ."

"Lone said so."

"Lone." She stood there on the stairs looking at her hands. Then she said, "Miriam, that will be all." And you wouldn't know it was the same woman, the way she said it.

The maid opened her mouth, but Miss Kew stuck out a finger that might as well of had a rifle-sight on the end of it. The maid beat it.

"Hey," I said, "here's your broom." I was just going to

throw it, but Miss Kew got to me and took it out of my hand.

"In there," she said.

SHE made me go ahead of her into a room as big as our swimming hole. It had books all over and leather on top of the tables, with gold flowers drawn into the corners.

She pointed to a chair. "Sit there. No, wait a moment." She went to the fireplace and got a newspaper out of a box and brought it over and unfolded it on the seat of the chair. "Now sit down."

I sat on the paper and she dragged up another chair, but didn't put no paper on it.

"What is it? Where is Lone?"

"He died," I said.

She pulled in her breath and went white. She stared at me until her eyes started to water.

"You sick?" I asked her. "Go ahead, throw up. It'll make you feel better."

"Dead? Lone is dead?"

"Yeah. There was a flash flood last week and when he went out the next night in that big wind, he walked under a old oak tree that got gullied under by the flood. The tree come down on him."

"Came down on him," she whispered. "Oh, no . . . it's not true."

"It's true, all right. We planted

him this morning. We couldn't keep him around no more. He was beginning to st—"

"Stop!" She covered her face with her hands.

"What's the matter?"

"I'll be all right in a moment," she said in a low voice. She went and stood in front of the fireplace with her back to me. I took off one of my shoes while I was waiting for her to come back. But instead she talked from where she was. "Are you Lone's little boy?"

"Yeah. He told me to come to you."

"Oh, my dear child!" She came running back and I thought for a second she was going to pick me up or something, but she stopped short and wrinkled up her nose a little bit. "Wh-what's your name?"

"Gerry," I told her.

"Well, Gerry, how would you like to live with me in this nice big house and—and have new clean clothes—and everything?"

"Well, that's the whole idea. Lone told me to come to you. He said you got more dough than you know what to do with, and he said you owed him a favor."

"A favor?" That seemed to bother her.

"Well," I tried to tell her, "he said he done something for you once and you said some day you'd pay him back for it if you

ever could. This is it."

"What did he tell you about that?" She'd got her honk back by then.

"Not a damn thing."

"Please don't use that word," she said, with her eyes closed. Then she opened them and nodded her head. "I promised and I'll do it. You can live here from

now on. If—if you want to."

"That's got nothin' to do with it. Lone told me to."

"You'll be happy here," she said. She gave me an up-and-down. "I'll see to that."

"Okay. Shall I go get the other kids?"

"Other kids—children?"

"Yeah. This ain't for just me.



For all of us—the whole gang.”

“Don’t say ‘ain’t.’ ” She leaned back in her chair, took out a silly little handkerchief and dabbed her lips with it, looking at me the whole time. “Now tell me about these—these other children.”

“Well, there’s Janie, she’s eleven like me. And Bonnie and

Beanie are eight, they’re twins, and Baby. Baby is three.”

“Baby is three,” she said.

I SCREAMED. Stern was kneeling beside the couch in a flash, holding his palms against my cheeks to hold my head still; I’d been whipping it back and forth.

“Good boy,” he said. “You found it. You haven’t found out *what* it is, but now you know *where* it is.”

“But for sure,” I said hoarsely. “Got water?”

He poured me some water out of a thermos flask. It was so cold it hurt. I lay back and rested, like I’d climbed a cliff. I said, “I can’t take anything like that again.”

“You want to call it quits for today?”

“What about you?”

“I’ll go on as long as you want me to.”

I thought about it. “I’d like to go on, but I don’t want no thumping around. Not for a while yet.”

“If you want another of those inaccurate analogies,” Stern said, “psychiatry is like a road map. There are always a lot of different ways to get from one place to another place.”

“I’ll go around by the long way,” I told him. “The eight-lane highway. Not that track over the hill. My clutch is slipping. Where do I turn off?”



He chuckled. I liked the sound of it. "Just past that gravel driveway."

"I been there. There's a bridge washed out."

"You've been on this whole road before," he told me. "Start at the other side of the bridge."

"I never thought of that. I figured I had to do the whole thing, every inch."

"Maybe you won't have to, maybe you will, but the bridge will be easy to cross when you've covered everything else. Maybe there's nothing of value on the bridge and maybe there is, but you can't get near it till you've looked everywhere else."

"Let's go." I was real eager, somehow.

"Mind a suggestion?"

"No."

"Just talk," he said. "Don't try to get too far into what you're saying. That first stretch, when you were eight—you really lived it. The second one, all about the kids, you just talked about. Then, the visit when you were eleven, you felt that. Now just talk again."

"All right."

He waited, then said quietly, "In the library. You told her about the other kids."

I TOLD her about . . . and then she said . . . and something happened, and I screamed.

She comforted me and I cussed at her.

But we're not thinking about that now. We're going on.

In the library. The leather, the table, and whether I'm able to do with Miss Kew what Lone said.

What Lone said was, "There's a woman lives up on the top of the hill in the Heights section, name of Kew. She'll have to take care of you. You got to get her to do that. Do everything she tells you, only stay together. Don't you ever let any one of you get away from the others, hear? Aside from that, just you keep Miss Kew happy and she'll keep you happy. Now you do what I say." That's what Lone said. Between every word there was a link like steel cable, and the whole thing made something that couldn't be broken. Not by me it couldn't.

Miss Kew said, "Where are your sisters and the baby?"

"I'll bring 'em."

"Is it near here?"

"Near enough." She didn't say anything to that, so I got up. "I'll be back soon."

"Wait," she said. "I—really, I haven't had time to think. I mean—I've got to get things ready, you know."

I said, "You don't need to think and you are ready. So long."

From the door I heard her

saying, louder and louder as I walked away, "Young man, if you're to live in this house, you'll learn to be a good deal better-mannered—" and a lot more of the same.

I yelled back at her, "Okay, okay!" and went out.

The sun was warm and the sky was good, and pretty soon I got back to Lone's house. The fire was out and Baby stunk. Janie had knocked over her easel and was sitting on the floor by the door with her head in her hands. Bonnie and Beanie were on a stool with their arms around each other, pulled up together as close as they could get, as if it was cold in there, although it wasn't.

I hit Janie in the arm to snap her out of it. She raised her head. She had gray eyes—or maybe it was more a kind of green—but now they had a funny look about them, like water in a glass that had some milk left in the bottom of it.

I said, "What's the matter around here?"

"What's the matter with what?" she wanted to know.

"All of yez," I said.

She said, "We don't give a damn, that's all."

"Well, all right," I said, "but we got to do what Lone said. Come on."

"No." I looked at the twins. They turned their backs on me.

Janie said, "They're hungry."

"Well, why not give 'em something?"

She just shrugged. I sat down. What did Lone have to go get himself squashed for?

"We can't blesh no more," said Janie. It seemed to explain everything.

"Look," I said, "I've got to be Lone now."

Janie thought about that, and Baby kicked his feet. Janie looked at him. "You can't," she said.

"I know where to get the heavy food and the turpentine," I said. "I can find that springy moss to stuff in the logs, and cut wood, and all."

But I couldn't call Bonnie and Beanie from miles away to unlock doors. I couldn't just say a word to Janie and make her get water and blow up the fire and fix the battery. I couldn't make us blesh.

We all stayed like that for a long time. Then I heard the basinet creak. I looked up. Janie was staring into it.

"All right," she said. "Let's go."

"Who says so?"

"Baby."

"Who's running things now?"

I said, mad. "Me or Baby?"

"Baby," Janie said.

I got up and went over to bust her one in the mouth, and then I stopped. If Baby could make them do what Lone wanted, then it would get done. If I started

pushing them all around, it wouldn't. So I didn't say anything. Janie got up and walked out the door. The twins watched her go. Then Bonnie disappeared. Beanie picked up Bonnie's clothes and walked out. I got Baby out of the bassinet and draped him over my shoulders.

IT was better when we were all outside. It was getting late in the day and the air was warm. The twins flitted in and out of the trees like a couple of flying squirrels, and Janie and I walked along like we were going swimming or something. Baby started to kick, and Janie looked at him a while and got him fed, and he was quiet again.

When we came close to town. I wanted to get everybody close together, but I was afraid to say anything. Baby must of said it instead. The twins came back to us and Janie gave them their clothes and they walked ahead of us, good as you please. I don't know how Baby did it. They sure hated to travel that way.

We didn't have no trouble except one guy we met on the street near Miss Kew's place. He stopped in his tracks and gaped at us, and Janie looked at him and made his hat go so far down over his eyes that he like to pull his neck apart getting it back up again.

What do you know, when we got to the house somebody had washed off all the dirt I'd put on the door. I had one hand on Baby's arm and one on his ankle and him draped over my neck, so I kicked the door and left some more dirt.

"There's a woman here name of Miriam," I told Janie. "She says anything, tell her to go to hell."

The door opened and there was Miriam. She took one look and jumped back six feet. We all trailed inside. Miriam got her wind and screamed, "Miss Kew! Miss Kew!"

"Go to hell," said Janie, and looked at me. I didn't know what to do. It was the first time Janie ever did anything I told her to.

Miss Kew came down the stairs. She was wearing a different dress, but it was just as stupid and had just as much lace. She opened her mouth and nothing came out, so she just left it open until something happened. Finally she said, "Dear gentle Lord preserve us!"

The twins lined up and gawked at her. Miriam sidled over to the wall and sort of slid along it, keeping away from us, until she could get to the door and close it. She said, "Miss Kew, if those are the children you said were going to live here, I quit."

Janie said, "Go to hell."

Just then, Bonnie squatted down on the rug. Miriam squawked and jumped at her. She grabbed hold of Bonnie's arm and went to snatch her up. Bonnie disappeared, leaving Miriam with one small dress and the damndest expression on her face. Beanie grinned enough to split her head in two and started to wave like mad. I looked where she was waving, and there was Bonnie, naked as a jaybird, up on the banister at the top of the stairs.

Miss Kew turned around and saw her and sat down plump on the steps. Miriam went down, too, like she'd been slugged. Beanie picked up Bonnie's dress and walked up the steps past Miss Kew and handed it over. Bonnie put it on. Miss Kew sort of lolled around and looked up. Bonnie and Beanie came back down the stairs hand in hand to where I was. Then they lined up and gaped at Miss Kew.

"What's the matter with her?" Janie asked me.

"She gets sick every once in a while."

"Let's go back home."

"No," I told her.

MISS KEW grabbed the banister and pulled herself up. She stood there hanging on to it for a while with her eyes closed. All of a sudden she stiffened herself. She looked about four inches

taller. She came marching over to us.

"Gerard," she honked.

I think she was going to say something different. But she sort of checked herself and pointed. "What in heaven's name is *that*?" And she aimed her finger at me.

I didn't get it right away, so I turned around to look behind me. "What?"

"That! That!"

"Oh!" I said. "That's Baby."

I slung him down off my back and held him up for her to look at. She made a sort of moaning noise and jumped over and took him away from me. She held him out in front of her and moaned again and called him a poor little thing, and ran and put him down on a long bench thing with cushions under the colored-glass window. She bent over him and put her knuckle in her mouth and bit on it and moaned some more. Then she turned to me.

"How long has he been like this?"

I looked at Jane and she looked at me. I said, "He's always been like he is."

She made a sort of cough and ran to where Miriam was lying flaked on the floor. She slapped Miriam's face a couple of times back and forth. Miriam sat up and looked us over. She closed her eyes and shivered and sort of climbed up Miss Kew hand over

hand until she was on her feet.

"Pull yourself together," said Miss Kew between her teeth. "Get a basin with some hot water and soap. Washcloth. Towels. Hurry!" She gave Miriam a big push. Miriam staggered and grabbed at the wall, and then ran out.

Miss Kew went back to Baby and hung over him, titch-titching with her lips all tight.

"Don't mess with him," I said. "There's nothin' wrong with him. We're hungry."

She gave me a look like I'd punched her. "Don't speak to me!"

"Look," I said. "we don't like this any more'n you do. If Lone hadn't told us to, we wouldn't never have come. We were doing all right where we were."

"Don't say 'wouldn't never,'" said Miss Kew. She looked at all of us, one by one. Then she took that silly little hunk of handkerchief and pushed it against her mouth.

"See?" I said to Janie. "All the time gettin' sick."

"Ho-ho," said Bonnie.

Miss Kew gave her a long look. "Gerard," she said in a choked sort of voice, "I understood you to say that these children were your sisters."

"Well?"

She looked at me as if I was real stupid. "We don't have little colored girls for sisters, Gerard."

Janie said, "We do."

Miss Kew walked up and back, real fast. "We have a great deal to do," she said, talking to herself.

Miriam came in with a big oval pan and towels and stuff on her arm. She put it down on the bench thing and Miss Kew stuck the back of her hand in the water, then picked up Baby and dunked him right in it. Baby started to kick.

I stepped forward and said "Wait a minute. Hold on now. What do you think you're doing?"

Janie said, "Shut up, Gerry. He says it's all right."

"All right? She'll drowned him."

"No, she won't. Just shut up."

WORKING up a froth with the soap, Miss Kew smeared it on Baby and turned him over a couple of times and scrubbed at his head and like to smothered him in a big white towel. Miriam stood gawking while Miss Kew lashed up a dishcloth around him so it come out pants. When she was done, you wouldn't of known it was the same baby. And by the time Miss Kew finished with the job, she seemed to have a better hold on herself. She was breathing hard and her mouth was even tighter. She held out the baby to Miriam.

"Take this poor thing," she said, "and put him—"

But Miriam backed away. "I'm sorry, Miss Kew, but I am leaving here and I don't care."

Miss Kew got her honk out. "You can't leave me in a predicament like this! These children need help. Can't you see that for yourself?"

Miriam looked me and Janie over. She was trembling. "You ain't safe, Miss Kew. They ain't just dirty. They're crazy!"

"They're victims of neglect, and probably no worse than you or I would be if we'd been neglected. And don't say 'ain't.' Gerard!"

"What?"

"Don't say—oh, dear, we have so much to do. Gerard, if you and your — these other children are going to live here, you shall have to make a great many changes. You cannot live under this roof and behave as you have so far. Do you understand that?"

"Oh, sure. Lone said we was to do whatever you say and keep you happy."

"Will you do whatever I say?"

"That's what I just said, isn't it?"

"Gerard, you shall have to learn not to speak to me in that tone. Now, young man, if I told you to do what Miriam says, too, would you do it?"

I said to Jane, "What about that?"

"I'll ask Baby." Janie looked at Baby and Baby wobbled his hands and drooled some. She said, "It's okay."

Miss Kew said, "Gerard, I asked you a question."

"Keep your pants on," I said. "I got to find out, don't I? Yes, if that's what you want, we'll listen to Miriam, too."

Miss Kew turned to Miriam. "You hear that, Miriam?"

Miriam looked at Miss Kew and at us and shook her head. Then she held out her hands a bit to Bonnie and Beanie.

They went right to her. Each one took hold of a hand. They looked up at her and grinned. They were probably planning some sort of hellishness, but I guess they looked sort of cute. Miriam's mouth twitched and I thought for a second she was going to look human. She said, "All right, Miss Kew."

Miss Kew walked over and handed her the baby and she started upstairs with him. Miss Kew herded us along after Miriam. We all went upstairs.

They went to work on us then and for three years they never stopped.

"**T**HAT was hell," I said to Stern.

"They had their work cut out."

"Yeah, I s'pose they did. So did we. Look, we were going to do exactly what Lone said. Nothing on earth could of stopped us from doing it. We were tied and bound to doing every last little thing Miss Kew said to do. But she and Miriam never seemed to understand that. I guess they felt they had to push every inch of the way. All they had to do was make us understand what they wanted, and we'd of done it. That's okay when it's something like telling me not to climb into bed with Janie.

"Miss Kew raised holy hell over that. You'd of thought I'd robbed the Crown Jewels, the way she acted. But when it's something like, 'You must behave like little ladies and gentlemen,' it just doesn't mean a thing. And two out of three orders she gave us were like that. 'Ah-ah!' she'd say. 'Language, language!' For the longest time I didn't dig that at all. I finally asked her what the hell she meant, and then she finally came out with it. But you see what I mean."

"I certainly do," Stern said. "Did it get easier as time went on?"

"We only had real trouble twice, once about the twins and once about Baby. That one was real bad."

"What happened?"

"About the twins? Well, when

we'd been there about a week or so we began to notice something that sort of stunk. Janie and me, I mean. We began to notice that we almost never got to see Bonnie and Beanie. It was like that house was two houses, one part for Miss Kew and Janie and me, and the other part for Miriam and the twins. I guess we'd have noticed it sooner if things hadn't been such a hassel at first, getting us into new clothes and making us sleep all the time at night, and all that. But here was the thing: We'd all get turned out in the side yard to play, and then along comes lunch, and the twins got herded off to eat with Miriam while we ate with Miss Kew. So Janie said, 'Why don't the twins eat with us?'

" 'Miriam's taking care of them, dear,' Miss Kew says.

"Janie looked at her with those eyes. 'I know that. Let 'em eat here and I'll take care of 'em.'

"Miss Kew's mouth got all tight again and she said, 'They're little colored girls, Jane. Now eat your lunch.'

"But that didn't explain anything to Jane or me, either. I said, 'I want 'em to eat with us. Lone said we should stay together.'

" 'But you are together,' she says. 'We all live in the same house. We all eat the same food. Now let us not discuss the matter.'

"I looked at Janie and she looked at me, and she said, 'So why can't we all do this livin' and eatin' right here?'"

"Miss Kew put down her fork and looked hard. 'I have explained it to you and I have said that there will be no further discussion.'

"Well, I thought that was real nowhere. So I just rocked back my head and bellowed, 'Bonnie! Beanie!' And *bing*, there they were.

"So all hell broke loose. Miss Kew ordered them out and they wouldn't go, and Miriam come steaming in with their clothes, and she couldn't catch them, and Miss Kew got to honking at them and finally at me. She said this was too much. Well, maybe she had had a hard week, but so had we. So Miss Kew ordered us to leave.

"I went and got Baby and started out, and along came Janie and the twins. Miss Kew waited till we were all out the door and next thing you know she ran out after us. She passed us and got in front of me and made me stop. So we all stopped.

"'Is this how you follow Lone's wishes?' she asked.

"I told her yes. She said she understood Lone wanted us to stay with her. And I said, 'Yeah, but he wanted us to stay together more.'

"She said come back in, we'd have a talk. Jane asked Baby and Baby said okay, so we went back. We had a compromise. We didn't eat in the dining room no more. There was a side porch, a sort of verandah thing with glass windows, with a door to the dining room and a door to the kitchen, and we all ate out there after that. Miss Kew ate by herself.

"But something funny happened because of that whole cock-eyed hassel."

"**W**HAT was that?" Stern asked me.

I laughed. "Miriam. She looked and sounded like always, but she started slipping us cookies between meals. You know, it took me years to figure out what all that was about. I mean it. From what I've learned about people, there seems to be two armies fightin' about race. One's fightin' to keep 'em apart, and one's fightin' to get 'em together. But I don't see why both sides are so worried about it! Why don't they just forget it?"

"They can't. You see, Gerry, it's necessary for people to believe they are superior in some fashion. You and Lone and the kids—you were a pretty tight unit. Didn't you feel you were a little better than all of the rest of the world?"

"Better? How could we be better?"

"Different, then."

"Well, I suppose so, but we didn't think about it. Different, yes. Better, no."

"You're a unique case," Stern said. "Now go on and tell me about the other trouble you had. About Baby."

"Baby. Yeah. Well, that was a couple of months after we moved to Miss Kew's. Things were already getting real smooth, even then. We'd learned all the 'yes, ma'am, no, ma'am' routines by then and she'd got us catching up with school—regular periods morning and afternoon, five days a week. Jane had long ago quit taking care of Baby, and the twins walked to wherever they went. That was funny. They could pop from one place to another right in front of Miss Kew's eyes and she wouldn't believe what she saw. She was too upset about them suddenly showing up bare. They quit doing it and she was happy about it. She was happy about a lot of things. It had been years since she'd seen anybody—years. She'd even had the meters put outside the house so no one would ever have to come in. But with us there, she began to liven up. She quit wearing those old-lady dresses and began to look halfway human. She ate with us sometimes, even.

"But one fine day I woke up feeling real weird. It was like somebody had stolen something from me when I was asleep, only I didn't know what. I crawled out of my window and along the ledge into Janie's room, which I wasn't supposed to do. She was in bed. I went and woke her up. I can still see her eyes, the way they opened a little slit, still asleep, and then popped up wide. I didn't have to tell her something was wrong. She knew, and she knew what it was.

"'Baby's gone!' she said.

"We didn't care then who woke up. We pounded out of her room and down the hall and into the little room at the end where Baby slept. You wouldn't believe it. The fancy crib he had, and the white chest of drawers, and all that mess of rattles and so on, they were gone, and there was just a writing desk there. I mean it was as if Baby had never been there at all.

"We didn't say anything. We just spun around and busted into Miss Kew's bedroom. I'd never been in there but once and Jane only a few times. But forbidden or not, this was different. Miss Kew was in bed, with her hair braided. She was wide awake before we could get across the room. She pushed herself back and up until she was sitting against the headboard. She gave

the two of us the cold eye.

"What is the meaning of this?" she wanted to know.

"Where's Baby?" I yelled at her.

"Gerard," she says, 'there is no need to shout.'

"Jane was a real quiet kid, but she said, 'You better tell us where he is, Miss Kew,' and it would of scared you to look at her when she said it.

"So all of a sudden Miss Kew took off the stone face and held out her hands to us. 'Children,' she said, 'I'm sorry. I really am sorry. But I've just done what is best. I've sent Baby away. He's gone to live with some children like him. We could never make him really happy here. You know that.'

"Jane said, 'He never told us he wasn't happy.'

"Miss Kew brought out a hollow kind of laugh. 'As if he could talk, the poor little thing!'

"You better get him back here,' I said. 'You don't know what you're fooling with. I told you we wasn't ever to break up.'

"She was getting mad, but she held on to herself. 'I'll try to explain it to you, dear,' she said. 'You and Jane here and even the twins are all normal, healthy children and you'll grow up to be fine men and women. But poor Baby's—different. He's not going to grow very much more,

and he'll never walk and play like other children.'

"That doesn't matter,' Jane said. 'You had no call to send him away.'

"And I said, 'Yeah. You better bring him back, but quick.'

"Then she started to jump salty. 'Among the many things I have taught you is, I am sure, not to dictate to your elders. Now, then, you run along and get dressed for breakfast, and we'll say no more about this.'

"I told her, nice as I could, 'Miss Kew, you're going to wish you brought him back right now. But you're going to bring him back soon. Or else.'

"So then she got up out of her bed and ran us out of the room."

I WAS quiet a while, and Stern asked, "What happened?"

"Oh," I said, "she brought him back." I laughed suddenly. "I guess it's funny now, when you come to think of it. Nearly three months of us getting bossed around, and her ruling the roost, and then all of a sudden we lay down the law. We'd tried our best to be good according to her ideas, but, by God, that time she went too far. She got the treatment from the second she slammed her door on us. She had a big china pot under her bed, and it rose up in the air and smashed



through her dresser mirror. Then one of the drawers in the dresser slid open and a glove come out of it and smacked her face.

"She went to jump back on the bed and a whole section of plaster fell off the ceiling onto the bed. The water turned on in her little bathroom and the plug went in, and just about the time it began to overflow, all her clothes fell off their hooks. She went to run out of the room, but the door was stuck, and when she yanked on the handle it opened real quick and she spread out on the floor. The door slammed shut again and more plaster come down on her. Then we went back in and stood looking at her. She was crying. I hadn't known till then that she could.

" 'You going to get Baby back here?' I asked her.

"She just lay there and cried. After a while she looked up at us. It was real pathetic. We helped her up and got her to a chair. She just looked at us for a while, and at the mirror, and at the busted ceiling, and then she whispered, 'What happened? What happened?'

" 'You took Baby away,' I said. 'That's what.'

"So she jumped up and said real low, real scared, but real strong: 'Something struck the house. An airplane. Perhaps there was an earthquake. We'll talk



about Baby after breakfast."

"I said, 'Give her more, Janie.'"

"A big gob of water hit her on the face and chest and made her nightgown stick to her, which was the kind of thing that upset her most. Her braids stood straight up in the air, more and more, till they dragged her standing straight up. She opened her mouth to yell and the powder puff off the dresser rammed into it. She clawed it out.

"'What are you doing? What are you doing?' she says, crying again.

"Janie just looked at her, and put her hands behind her, real smug. 'We haven't done anything,' she said.

"And I said, 'Not yet we haven't. You going to get Baby back?'

"And she screamed at us, 'Stop it! Stop it! Stop talking about that mongoloid idiot! It's no good to anyone, not even itself! How could I ever make believe it's mine?'

"I said, 'Get rats, Janie.'"

"There was a scuttling sound along the baseboard. Miss Kew covered her face with her hands and sank down on the chair. 'Not rats,' she said. 'There are no rats here.' Then something squeaked and she went all to pieces. Did you ever see anyone really go to pieces?"

"Yes," Stern said.

"I was about as mad as I could get," I said, "but that was almost too much for me. Still, she shouldn't have sent Baby away. It took a couple of hours for her to get straightened out enough so she could use the phone, but we had Baby back before lunch time." I laughed.

"What's funny?"

"She never seemed able to rightly remember what had happened to her. About three weeks later I heard her talking to Miriam about it. She said it was the house settling suddenly. She said it was a good thing she'd sent Baby out for that medical check-up—the poor little thing might have been hurt. She really believed it, I think."

"She probably did. That's fairly common. We don't believe anything we don't want to believe."

"How much of this do you believe?" I asked him suddenly.

"I told you before—it doesn't matter. I don't want to believe or disbelieve it."

"You haven't asked me how much of it I believe."

"I don't have to. You'll make up your own mind about that."

"Are you a good psychotherapist?"

"I think so," he said. "Whom did you kill?"

The question caught me absolutely off guard. "Miss Kew," I

said. Then I started to cuss and swear. "I didn't mean to tell you that."

"Don't worry about it," he said. "What did you do it for?"

"That's what I came here to find out."

"You must have really hated her."

I started to cry. Fifteen years old and crying like that!

HE gave me time to get it all out. The first part of it came out in noises, grunts and squeaks that hurt my throat. Much more than you'd think came out when my nose started to run. And finally—words.

"Do you know where I came from? The earliest thing I can remember is a punch in the mouth. I can still see it coming, a fist as big as my head. Because I was crying. I been afraid to cry ever since. I was crying because I was hungry. Cold, maybe. Both. After that, big dormitories, and whoever could steal the most got the most. Get the hell kicked out of you if you're bad, get a big reward if you're good. Big reward: they let you alone. Try to live like that. Try to live so the biggest, most wonderful thing in the whole damn world is just to have 'em let you alone!

"So a spell with Lone and the kids. Something wonderful: you

belong. It never happened before. Two yellow bulbs and a fireplace and they light up the world. It's all there is and all there ever has to be.

"Then the big change: clean clothes, cooked food, five hours a day school; Columbus and King Arthur and a 1925 book on Civics that explains about septic tanks. Over it all a great big square-cut lump of ice, and you watch it melting and the corners curve, and you know it's because of you, Miss Kew . . . hell, she had too much control over herself ever to slobber over us, but it was there, that feeling. Lone took care of us because it was part of the way he lived. Miss Kew took care of us, and none of it was the way she lived. It was something she wanted to do.

"She had a weird idea of 'right' and a wrong idea of 'wrong,' but she stuck to them, tried to make her ideas do us good. When she couldn't understand, she figured it was her own failure . . . and there was an almighty lot she didn't understand and never could. What went right was our success. What went wrong was her mistake. That last year, that was . . . oh, good."

"So?"

"So I killed her. Listen," I said. I felt I had to talk fast. I wasn't short of time, but I had to get rid of it. "I'll tell you all

I know about it. The one day before I killed her. I woke up in the morning and the sheets crackly clean under me, the sunlight coming in through white curtains and bright red-and-blue drapes. There's a closet full of my clothes—mine, you see; I never had anything that was really mine before—and downstairs Miriam clinking around with breakfast and the twins laughing. Laughing with her, mind you, not just with each other like they always did before.

"In the next room, Janie moving around, singing, and when I see her, I know her face will shine inside and out. I get up. There's hot hot water and the toothpaste bites my tongue. The clothes fit me and I go downstairs and they're all there and I'm glad to see them and they're glad to see me, and we no sooner get set around the table when Miss Kew comes down and everyone calls out to her at once.

"And the morning goes by like that, school with a recess, there in the big long living room. The twins with the ends of their tongues stuck out, drawing the alphabet instead of writing it, and then Jane, when it's time, painting a picture, a real picture of a cow with trees and a yellow fence that goes off into the distance. Here I am lost between the two parts of a quadratic equa-

tion, and Miss Kew bending close to help me, and I smell the sachet she has on her clothes. I hold up my head to smell it better, and far away I hear the shuffle and klunk of filled pots going on the stove back in the kitchen.

"And the afternoon goes by like that, more school and some study and boiling out into the yard, laughing. The twins chasing each other, running on their two feet to get where they want to go; Jane dappling the leaves in her picture, trying to get it just the way Miss Kew says it ought to be. And Baby, he's got a big play-pen. He don't move around much any more, he just watches and dribbles some, and gets packed full of food and kept as clean as a new sheet of tinfoil.

"And supper, and the evening, and Miss Kew reading to us, changing her voice every time someone else talks in the story, reading fast and whispery when it embarrasses her, but reading every word all the same.

"And I had to go and kill her. And that's all."

"YOU haven't said why," Stern said.

"What are you—stupid?" I yelled.

Stern didn't say anything. I turned on my belly on the couch and propped up my chin in my hands and looked at him. You

never could tell what was going on with him, but I got the idea that he was puzzled.

"I said why," I told him.

"Not to me."

I suddenly understood that I was asking too much of him. I said slowly, "We all woke up at the same time. We all did what somebody else wanted. We lived through a day someone else's way, thinking someone else's thoughts, saying other people's words. Jane painted someone else's pictures, Baby didn't talk to anyone, and we were all happy with it. Now do you see?"

"Not yet."

"God!" I said. I thought for a while. "We didn't blesh."

"Blesh? Oh. But you didn't after Lone died, either."

"That was different. That was like a car running out of gas, but the car's there—there's nothing wrong with it. It's just waiting. But after Miss Kew got done with us, the car was taken all to pieces, see?"

It was his turn to think a while. Finally he said, "The mind makes us do funny things. Some of them seem completely reasonless, wrong, insane. But the cornerstone of the work we're doing is this: there's a chain of solid, unassailable logic in the things we do. Dig deep enough and you find cause and effect as clearly in this field as you do in any

other. I said *logic*, mind; I didn't say 'correctness' or 'rightness' or 'justice' or anything of the sort. Logic and truth are two very different things, but they often look the same to the mind that's performing the logic.

"When that mind is submerged, working at cross-purposes with the surface mind, then you're all confused. Now in your case, I can see the thing you're pointing at—that in order to preserve or to rebuild that peculiar bond between you kids, you had to get rid of Miss Kew. But I don't see the logic. I don't see that regaining that 'bleshing' was worth destroying this new-found security which you admit was enjoyable."

I said, desperately, "Maybe it wasn't worth destroying it."

Stern leaned forward and pointed his pipe at me. "It was because it made you do what you did. After the fact, maybe things look different. But, when you were moved to do it, the important thing was to destroy Miss Kew and regain this thing you'd had before. I don't see why and neither do you."

"How are we going to find out?"

"Well, let's get right to the most unpleasant part, if you're up to it."

I lay down. "I'm ready."

"All right. Tell me everything

that happened just before you killed her."

I FUMBLED through that last day, trying to taste the food, hear the voices. A thing came and went and came again: it was the crisp feeling of the sheets. I thrust it away because it was at the beginning of that day, but it came back again, and I realized it was at the end, instead.

I said, "What I just told you, all that about the children doing things other people's way instead of their own, and Baby not talking, and everyone happy about it, and finally that I had to kill Miss Kew. It took a long time to get to that, and a long time to start doing it. I guess I lay in bed and thought for four hours before I got up again. It was dark and quiet. I went out of the room and down the hall and into Miss Kew's bedroom and killed her."

"How?"

"That's all there is!" I shouted, as loud as I could. Then I quieted down. "It was awful dark . . . it still is. I don't know. I don't want to know. She did love us. I know she did. But I had to kill her."

"All right, all right," Stern said. "I guess there's no need to get too gruesome about this. You're—"

"What?"

"You're quite strong for your

age, aren't you, Gerard?"

"I guess so. Strong enough, anyway."

"Yes," he said.

"I still don't see that logic you were talking about." I began to hammer on the couch with my fist, hard, once for each word: "Why — did — I — have — to — go — and — do — that?"

"Cut that out," he said. "You'll hurt yourself."

"I ought to get hurt," I said.

"Ah?" said Stern.

I got up and went to the desk and got some water. "What am I going to do?"

"Tell me what you did after you killed her, right up until the time you came here."

"Not much," I said. "It was only last night. I went back to my room, sort of numb. I put all my clothes on except my shoes. I carried them. I went out. Walked a long time, trying to think, went to the post office when it opened. Miss Kew used to let me go for the mail sometimes. Found this check waiting for me for the contest. Cashed it at the bank, opened an account, took eleven hundred bucks. Got the idea of getting some help from a psychiatrist, spent most of the day looking for one, came here. That's all."

"Didn't you have any trouble cashing the check?"

"I never have any trouble

making people do what I want them to do."

He gave a surprised grunt.

"I know what you're thinking—I couldn't make Miss Kew do what I wanted."

"That's part of it," he admitted.

"If I had of done that," I told him, "she wouldn't of been Miss Kew any more. Now the banker—all I made him do was be a banker."

I LOOKED at him and suddenly realized why he fooled with that pipe all the time. It was so he could look down at it and you wouldn't be able to see his eyes.

"You killed her," he said—and I knew he was changing the subject—"and destroyed something that was valuable to you. It must have been less valuable to you than the chance to rebuild this thing you used to have with the other kids. And you're not sure of the value of that." He looked up. "Does that describe your main trouble?"

"Just about."

"You know the single thing that makes people kill?" When I didn't answer, he said, "Survival. To save the self or something which identifies with the self. And in this case that doesn't apply, because your setup with Miss Kew had far more survival

value for you, singly and as a group, than the other."

"So maybe I just didn't have a good enough reason to kill her."

"You had, because you did it. We just haven't located it yet. I mean we have the reason, but we don't know why it was important enough. The answer is somewhere in you."

"Where?"

He got up and walked some. "We have a pretty consecutive life-story here. There's fantasy mixed with the fact, of course, and there are areas in which we have no detailed information, but we have a beginning and a middle and an end. Now, I can't say for sure, but the answer may be in that bridge you refused to cross a while back. Remember?"

I remembered, all right. I said, "Why that? Why can't we try something else?"

He quietly pointed out, "Because you just said it. Why are you shying away from it?"

"Don't go making big ones out of little ones," I said. Sometimes the guy annoyed me. "That bothers me. I don't know why, but it does."

"Something's lying hidden in there, and you're bothering it so it's fighting back. Anything that fights to stay concealed is very possibly the thing we're after. Your trouble is concealed, isn't it?"

"Well, yes," I said, and I felt that sickness and faintness again, and again I pushed it away. Suddenly I wasn't going to be stopped any more. "Let's go get it." I lay down.

He let me watch the ceiling and listen to silence for a while, and then he said, "You're in the library. You've just met Miss Kew. She's talking to you; you're telling her about the children."

I lay very still. Nothing happened. Yes, it did; I got tense inside, all over, from the bones out, more and more. When it got as bad as it could, still nothing happened.

I heard him get up and cross the room to the desk. He fumbled there for a while; things clicked and hummed. Suddenly I heard my own voice:

"Well, there's Jane, she's eleven like me. And Bonnie and Beanie are eight, they're twins, and Baby. Baby is three."

And the sound of my own scream—

And nothingness.

SPUTTERING up out of the darkness, I came flailing out with my fists. Strong hands caught my wrists. They didn't check my arms; they just grabbed and rode. I opened my eyes. I was soaking wet. The thermos lay on its side on the rug. Stern was crouched beside me, holding

my wrists. I quit struggling.

"What happened?"

He let me go and stood back watchfully. "Lord," he said, "what a charge!"

I held my head and moaned. He threw me a hand-towel and I used it. "What hit me?"

"I've had you on tape the whole time," he explained. "When you wouldn't get into that recollection, I tried to nudge you into it by using your own voice as you recounted it before. It works wonders sometimes."

"It worked wonders this time," I growled. "I think I blew a fuse."

"In effect, you did. You were on the trembling verge of going into the thing you don't want to remember, and you let yourself go unconscious rather than do it."

"What are you so pleased about?"

"Last-ditch defense," he said tersely. "We've got it now. Just one more try."

"Now hold on. The last-ditch defense is that I drop dead."

"You won't. You've contained this episode in your subconscious mind for a long time and it hasn't hurt you."

"Hasn't it?"

"Not in terms of killing you."

"How do you know it won't when we drag it out?"

"You'll see."

I looked up at him sideways. Somehow he struck me as know-

ing what he was doing.

"You know a lot more about yourself now than you did at the time," he explained softly. "You can apply insight. You can evaluate it as it comes up. Maybe not completely, but enough to protect yourself. Don't worry. Trust me. I can stop it if it gets too bad. Now just relax. Look at the ceiling. Be aware of your toes. Don't look at your toes. Look straight up. Your toes, your big toes. Don't move your toes, but feel them. Count outward from your big toes, one count for each toe. One, two, three. Feel that third toe. Feel the toe, feel it, feel it go limp, go limp, go limp. The toe next to it on both sides gets limp. So limp because your toes are limp, all of your toes are limp—"

"What are you doing?" I shouted at him.

He said in the same silky voice, "You trust me and so do your toes trust me. They're all limp because you trust me. You—"

"You're trying to hypnotize me. I'm not going to let you do that."

"You're going to hypnotize yourself. You do everything yourself. I just point the way. I point your toes to the path. Just point your toes. No one can make you go anywhere you don't want to go, but you want to go where your toes are pointed where your

toes are limp where your . . ."

On and on and on. And where was the dangling gold ornament, the light in the eyes, the mystic passes? He wasn't even sitting where I could see him. Where was the talk about how sleepy I was supposed to be? Well, he knew I wasn't sleepy and didn't want to be sleepy. I just wanted to be toes. I just wanted to be limp, just a limp toe. No brains in a toe, a toe to go, go, go eleven times, eleven, I'm eleven . . .

I split in two, and it was all right, the part that watched the part that went back to the library, and Miss Kew leaning toward me, but not too near, me with the newspaper crackling under me on the library chair, me with one shoe off and my limp toes dangling . . . and I felt a mild surprise at this. For this was hypnosis, but I was quite conscious, quite altogether there on the couch with Stern droning away at me, quite able to roll over and sit up and talk to him and walk out if I wanted to, but I just didn't want to. Oh, if this was what hypnosis was like, I was all for it. I'd work at this. This was all right.

There on the table I'm able to see that the gold will unfold on the leather, and whether I'm able to stay by the table with you, with Miss Kew, with Miss Kew . . .

"... and Bonnie and Beanie are eight, they're twins, and Baby. Baby is three."

"Baby is three," she said.

There was a pressure, a stretching apart, and a . . . a breakage. And with a tearing agony and a burst of triumph that drowned the pain, it was done.

And this is what was inside. All in one flash, but all this.

BABY is three? My baby would be three if there were a baby, which there never was. . .

Lone, I'm open to you. Open, is this open enough?

His irises like wheels. I'm sure they spin, but I never catch them at it. The probe that passes invisibly from his brain, through his eyes, into mine. Does he know what it means to me? Does he care? He doesn't care, he doesn't know; he empties me and I fill as he directs me to; he drinks and waits and drinks again and never looks at the cup.

"When I saw him first, I was dancing in the wind, in the wood, in the wild, and I spun about and he stood there in the leafy shadows, watching me. I hated him for it. It was not my wood, not my gold-spangled fern-tangled glen. But it was my dancing that he took, freezing it forever by being there. I hated him for it, hated the way he looked, the way he stood, ankle-deep in the kind

wet ferns, looking like a tree with roots for feet and clothes the color of earth. As I stopped he moved, and then he was just a man, a great ape-shouldered, dirty animal of a man, and all my hate was fear suddenly and I was just as frozen.

He knew what he had done and he didn't care. Dancing . . . never to dance again, because never would I know the woods were free of eyes, free of tall, uncaring, dirty animal men. Summer days with the clothes choking me, winter nights with the precious decencies round and about me like a shroud, and never to dance again, never to remember dancing without remembering the shock of knowing he had seen me. How I hated him! Oh, how I hated him!

To dance alone where no one knew, that was the single thing I hid to myself when I was known as Miss Kew, that Victorian, older than her years, later than her time; correct and starched, lace and linen and lonely. Now indeed I would be all they said, through and through, forever and ever, because he had robbed me of the one thing I dared to keep secret.

He came out into the sun and walked to me, holding his great head a little on one side. I stood where I was, frozen inwardly and outwardly and altogether by the

core of anger and the layer of fear. My arm was still out, my waist still bent from my dance, and when he stopped, I breathed again because by then I had to.

He said, "You read books?"

I couldn't bear to have him near me, but I couldn't move. He put out his hard hand and touched my jaw, turned my head up until I had to look into his face. I cringed away from him, but my face would not leave his hand, though he was not holding it, just lifting it. "You got to read some books for me. I got no time to find them."

I asked him, "Who are you?"

"Lone," he said. "You going to read books for me?"

"No. Let me go, let me go!"

He laughed at me. He wasn't holding me.

"What books?" I cried.

HE thumped my face, not very hard. It made me look up a bit more. He dropped his hand away. His eyes, the irises were going to spin . . .

"Open up in there," he said. "Open way up and let me see."

There were books in my head, and he was looking at the titles . . . he was not looking at the titles, for he couldn't read. He was looking at what I knew of the books. I suddenly felt terribly useless, because I had only a fraction of what he wanted.

"What's that?" he barked.

I knew what he meant. He'd gotten it from inside my head. I didn't know it was in there, even, but he found it.

"Telekinesis," I said.

"How is it done?"

"Nobody knows if it can be done. Moving physical objects with the mind!"

"It can be done," he said. "This one?"

"Teleportation. That's the same thing—well, almost. Moving your own body with mind power."

"Yeah, yeah, I see it," he said gruffly.

"Molecular interpenetration. Telepathy and clairvoyance. I don't know anything about them. I think they're silly."

"Read about 'em. It don't matter if you understand or not. What's this?"

It was there in my brain, on my lips. "*Gestalt*."

"What's that?"

"Group. Like a cure for a lot of diseases with one kind of treatment. Like a lot of thoughts expressed in one phrase. The whole is greater than the sum of the parts."

"Read about that, too. Read a whole lot about that. That's the most you got to read about. That's important."

He turned away, and when his eyes came away from mine it was

like something breaking, so that I staggered and fell to one knee. He went off into the woods without looking back. I got my things and ran home. There was anger, and it struck me like a storm. There was fear, and it struck me like a wind. I knew I would read the books, I knew I would come back, I knew I would never dance again.

So I read the books and I came back. Sometimes it was every day for three or four days, and sometimes, because I couldn't find a certain book, I might not come back for ten. He was always there in the little glen, waiting, standing in the shadows, and he took what he wanted of the books and nothing of me. He never mentioned the next meeting. If he came there every day to wait for me, or if he only came when I did, I have no way of knowing.

He made me read books that contained nothing for me, books on evolution, on social and cultural organization, on mythology, and ever so much on symbiosis. What I had with him were not conversations; sometimes nothing audible would pass between us but his grunt of surprise or small, short hum of interest.

He tore the books out of me the way he would tear berries from a bush, all at once; he smelled of sweat and earth and the green juices his heavy body crushed

when he moved through the wood.

If he learned anything from the books, it made no difference in him.

THERE came a day when he sat by me and puzzled something out.

He said, "What book has something like this?" Then he waited for a long time, thinking. "The way a termite can't digest wood, you know, and microbes in the termite's belly can, and what the termite eats is what the microbe leaves behind. What's that?"

"Symbiosis," I remembered. I remembered the words. Lone tore the content from words and threw the words away. "Two kinds of life depending upon one another for existence."

"Yeah. Well, is there a book about four-five kinds doing that?"

"I don't know."

Then he asked, "What about this? You got a radio station, you got four-five receivers, each receiver is fixed up to make something different happen, like one digs and one flies and one makes noise, but each one takes orders from the one place. And each one has its own power and its own thing to do, but they are all apart. Now: is there life like that, instead of radio?"

"Where each organism is a part

the whole, but separated? I don't think so . . . unless you mean social organizations, like a team, or perhaps a gang of men working, all taking orders from the same boss."

"No," he said immediately, "not like that. Like one single animal." He made a gesture with his cupped hand which I understood.

I asked, "You mean a *gestalt* life-form? It's fantastic."

"No book has about that, huh?"

"None I ever heard of."

"I got to know about that," he said heavily. "There is such a thing. I want to know if it ever happened before."

"I can't see how anything of the sort could exist."

"It does. A part that fetches, a part that figures, a part that finds out, and a part that talks."

"Talks? Only humans talk."

"I know," he said, and got up and went away.

I looked and looked for such a book, but found nothing remotely like it. I came back and told him so. He was still a very long time, looking off to the blue-on-blue line of the hilly horizon. Then he drove those about-to-spin irises at me and searched.

"You learn, but you don't think," he said, and looked again at the hills.

"This all happens with hu-

mans," he said eventually. "It happens piece by piece right under folk's noses, and they don't see it. You got mind-readers. You got people can move things with their mind. You got people can move themselves with their mind. You got people can figure anything out if you just think to ask them. What you ain't got is the one kind of person who can pull 'em all together, like a brain pulls together the parts that press and pull and feel heat and walk and think and all the other things.

"I'm one," he finished suddenly. Then he sat still for so long, I thought he had forgotten me.

"Lone," I said, "what do you do here in the woods?"

"I wait," he said. "I ain't finished yet." He looked at my eyes and snorted in irritation. "I don't mean 'finished' like you're thinking. I mean I ain't—completed yet. You know about a worm when it's cut, growin' whole again? Well, forget about the cut. Suppose it just grew that way, for the first time, see? I'm getting parts. I ain't finished. I want a book about that kind of animal that is me when I'm finished."

"I don't know of such a book. Can you tell me more? Maybe if you could, I'd think of the right book or a place to find it."

He broke a stick between his huge hands, put the two pieces side by side and broke them to-

gether with one strong twist.

"All I know is I got to do what I'm doing like a bird's got to nest when it's time. And I know that when I'm done I won't be anything to brag about. I'll be like a body stronger and faster than anything there ever was, without the right kind of head on it. But maybe that's because I'm one of the first. That picture you had, the caveman . . ."

"Neanderthal."

"Yeah. Come to think of it, he was no great shakes. An early try at something new. That's what I'm going to be. But maybe the right kind of head'll come along after I'm all organized. Then it'll be something."

He grunted with satisfaction and went away.

I TRIED, for days I tried, but I couldn't find what he wanted. I found a magazine which stated that the next important evolutionary step in man would be a psychic rather than a physical direction, but it said nothing about a—shall I call it a *gestalt* organism? There was something about slime molds, but they seem to be more a hive activity of amoebae than even a symbiosis.

To my own unscientific, personally uninterested mind, there was nothing like what he wanted except possibly a band marching together, everyone playing differ-

ent kinds of instruments with different techniques and different notes, to make a single thing move along together. But he hadn't meant anything like that.

So I went back to him in the cool of an early fall evening, and he took what little I had in my eyes, and turned from me angrily with a gross word I shall not permit myself to remember. •

"You can't find it," he told me. "Don't come back."

He got up and went to a tattered birch and leaned against it, looking out and down into the wind-tossed crackling shadows. I think he had forgotten me already. I know he leaped like a frightened animal when I spoke to him from so near. He must have been completely immersed in whatever strange thoughts he was having, for I'm sure he didn't hear me coming.

I said "Lone, don't blame me for not finding it. I tried."

He controlled his startlement and brought those eyes down to me. "Blame? Who's blamin' anybody?"

"I failed you," I told him, "and you're angry."

He looked at me so long I became uncomfortable.

"I don't know what you're talkin' about," he said.

I wouldn't let him turn away from me. He would have. He would have left me forever with

not another thought; he didn't care! It wasn't cruelty or thoughtlessness as I have been taught to know those things. He was as uncaring as a cat is of the bursting of a tulip bud.

I took him by the upper arms and shook him, it was like trying to shake the front of my house. "You can know!" I screamed at him. "You know what I read. You must know what I think!"

He shook his head.

"I'm a person, a woman," I raved at him. "You've used me and used me and you've given me nothing. You've made me break a lifetime of habits—reading until all hours, coming to you in the rain and on Sunday—you don't talk to me, you don't look at me, you don't know anything about me and you don't care. You put some sort of a spell on me that I couldn't break. And when you're finished, you say, 'Don't come back.' "

"Do I have to give something back because I took something?"

"People do."

He gave that short, interested hum. "What do you want me to give you? I ain't got anything."

I moved away from him. I felt . . . I don't know what I felt. After a time I said, "I don't know."

He shrugged and turned. I fairly leaped at him, dragging him back. "I want you to—"

"Well, damn it, what?"

I couldn't look at him; I could hardly speak. "I don't know. There's something, but I don't know what it is. It's something that—I couldn't say if I knew it." When he began to shake his head, I took his arms again. "You've read the books out of me; can't you read the . . . the me out of me?"

"I ain't never tried." He held my face up, and stepped close. "Here," he said.

HIS eyes projected their strange probe at me and I screamed. I tried to twist away. I hadn't wanted this, I was sure I hadn't. I struggled terribly. I think he lifted me right off the ground with his big hands. He held me until he was finished, and then let me drop. I huddled to the ground, sobbing. He sat down beside me. He didn't try to touch me. He didn't try to go away. I quieted at last and crouched there, waiting.

He said, "I ain't going to do much of that no more."

I sat up and tucked my skirt close around me and laid my cheek on my updrawn knees so I could see his face. "What happened?"

He cursed. "Damn mishmash inside you. Thirty-three years old—what you want to live like that for?"

"I live very comfortably," I said with some pique.

"Yeah," he said. "All by yourself for ten years now 'cept for someone to do your work. Nobody else."

"Men are animals, and women . . ."

"You really hate women. They all know something you don't."

"I don't want to know. I'm quite happy the way I am."

"Hell you are."

I said nothing to that. I despise that kind of language.

"Two things you want from me. Neither makes no sense." He looked at me with the first real expression I have ever seen in his face: a profound wonderment. "You want to know all about me, where I came from, how I got to be what I am."

"Yes, I do want that. What's the other thing I want that you know and I don't?"

"I was born some place and grewed like a weed somehow," he said, ignoring me. "Folks who didn't give even enough of a damn to try the orphanage routine. I lived with some other folks for a while, tried school, didn't like it. Too small a town for them special schools for my kind, retarded, y'know. So I just ran loose, sort of in training to be the village idiot. I'da made it if I'd stayed there, but I took to the woods instead."

"Why?"

He wondered why, and finally said, "I guess because the way people lived didn't make no sense to me. I saw enough up and down, back and forth, to know that they live a lot of different ways, but none of 'em was for me. Out here I can grow like I want."

"How is that?" I asked over one of those vast distances that built and receded between him and me so constantly.

"What I wanted to get from your books."

"You never told me."

FOR the second time he said, "You learn, but you don't think. There's a kind of—well, person. It's all made of separate parts, but it's all one person. It has like hands, it has like legs, it has like a talking mouth, and it has like a brain. That's me, a brain for that person. Damn feeble, too, but the best I know of."

"You're mad."

"No, I ain't," he said, unoffended and completely certain. "I already got the part that's like hands. I can move 'em anywhere and they do what I want, though they're too young yet to do much good. I got the part that talks. that one's real good."

"I don't think you talk very well at all," I said. I cannot stand incorrect English.

HE was surprised. "I'm not talking about me! She's back wonder with the others."

"She?"

"The one that talks. Now I need one that thinks, one that can take anything and add it to anything else and come up with a right answer. And once they're all together, and all the parts get used together often enough, I'll be that new kind of thing I told you about. See? Only—I wish it had a better head on it than me."

My own head was swimming. "What made you start doing this?"

He considered me gravely. "What made you start growing hair in your armpits?" he asked me. "You don't figure a thing like that. It just happens."

"What is that . . . that thing you do when you look in my eyes?"

"You want a name for it? I ain't got one. I don't know how I do it. I know I can get anyone I want to do anything. Like you're going to forget about me."

I said in a choked voice, "I don't want to forget about you."

"You will." I didn't know then whether he meant I'd forget, or I'd want to forget. "You'll hate me, and then after a long time you'll be grateful. Maybe you'll be able to do something for me some time. You'll be that grate-

ful that you'll be glad to do it. But you'll forget, all right, everything but a sort of . . . feeling. And my name, maybe."

I don't know what moved me to ask him, but I did, forlornly. "And no one will ever know about you and me?"

"Can't," he said. "Unless . . . well, unless it was the head of the animal, like me, or a better one." He heaved himself up.

"Oh, wait, wait!" I cried. He mustn't go yet, he mustn't. He was a tall, dirty beast of a man, yet he had enthralled me in some dreadful way. "You haven't given me the other . . . whatever it was."

"Oh," he said. "Yeah, that."

He moved like a flash. There was a pressure, a stretching apart, and a . . . a breakage. And with a tearing agony and a burst of triumph that drowned the pain, it was done.

I CAME up out of it, through two distinct levels:

I am eleven, breathless from shock from a transferred agony of that incredible entrance into the ego of another. And:

I am fifteen, lying on the couch while Stern drones on, "... quietly, quietly limp, your ankles and legs as limp as your toes, your belly goes soft, the back of your neck is as limp as your belly, it's quiet and easy and all gone soft

and limper than limp . . . "

I sat up and swung my legs to the floor. "Okay," I said.

Stern looked a little annoyed. "This is going to work," he said, "but it can only work if you cooperate. Just lie—"

"It did work," I said.

"What?"

"The whole thing. A to Z." I snapped my fingers. "Like that."

He looked at me piercingly. "What do you mean?"

"It was right there, where you said. In the library. When I was eleven. When she said, 'Baby is three.' It knocked loose something that had been boiling around in her for three years, and it all came blasting out. I got it, full force; just a kid, no warning, no defenses. It had such a—a pain in it, like I never knew could be."

"Go on," said Stern.

"That's really all. I mean that's not what was in it; it's what it did to me. What it was, a sort of hunk of her own self. A whole lot of things that happened over about four months, every bit of it. She knew Lone."

"You mean a whole series of episodes?"

"That's it."

"You got a series all at once? In a split second?"

"That's right. Look, for that split second I was her, don't you see? I was her, everything she'd

ever done, everything she'd ever thought and heard and felt. Everything, everything, all in the right order if I wanted to bring it out like that. Any part of it if I wanted it by itself. If I'm going to tell you about what I had for lunch, do I have to tell you everything else I've ever done since I was born? No. I tell you I was her, and then and forever after I can remember anything she could remember up to that point. In just that one flash."

"A *gestalt*," he murmured.

"Aha!" I said, and thought about that. I thought about a whole lot of things. I put them aside for a moment and said, "Why didn't I know all this before?"

"You had a powerful block against recalling it."

I GOT up excitedly. "I don't see why. I don't see that at all."

"Just natural revulsion," he guessed. "How about this? You had a distaste for assuming a female ego, even for a second."

"You told me yourself, right at the beginning, that I didn't have that kind of a problem."

"Well, how does this sound to you? You say you felt pain in that episode. So—you wouldn't go back into it for fear of re-experiencing the pain."

"Let me think, let me think. Yeah, yeah, that's part of it—that thing of going into someone's mind. She opened up to me because I reminded her of Lone. I went in. I wasn't ready; I'd never done it before, except maybe a little, against resistance. I went all the way in and it was too much; it frightened me away from trying it for years. And there it lay, wrapped up, locked away. But as I grew older, the power to do that with my mind got stronger and stronger, and still I was afraid to use it. And the more I grew, the more I felt, down deep, that Miss Kew had to be killed before she killed the . . . what I am. My God!" I shouted. "Do you know what I am?"

"No," he said. "Like to tell me about it?"

"I'd like to," I said. "Oh, yes, I'd like that."

He had that professional open-minded expression on his face, not believing or disbelieving, just taking it all in. I had to tell him, and I suddenly realized that I didn't have enough words. I knew the things, but not the names for them.

Lone took the meanings and threw the words away.

Further back: "You read books. Read books for me."

The look of his eyes. That—"opening up" thing.

I went over to Stern. He looked up at me. I bent close. First he was startled, then he controlled it, then he came even closer to me.

"My God," he murmured. "I didn't look at those eyes before. I could have sworn those irises spun like wheels . . ."

STERN read books. He'd read more books than I ever imagined had been written. I slipped in there, looking for what I wanted.

I can't say exactly what it was like. It was like walking in a tunnel, and in this tunnel, all over the roof and walls, wooden arms stuck out at you, like the thing at the carnival, the merry-go-round, the thing you snatch the brass rings from. There's a brass ring on the end of each of these arms, and you can take any one of them you want to.

Now imagine you make up your mind which rings you want, and the arms hold only those. Now picture yourself with a thousand hands to grab the rings off with. Now just suppose the tunnel is a zillion miles long, and you can go from one end of it to the other, grabbing rings, in just the time it takes you to blink once. Well, it was like that, only easier.

It was easier for me to do than it had been for Lone.

STRAIGHTENING up, I got away from Stern. He looked sick and frightened.

"It's all right," I said.

"What did you do to me?"

"I needed some words. Come on, come on. Get professional."

I had to admire him. He put his pipe in his pocket and gouged the tips of his fingers hard against his forehead and cheeks. Then he sat up and he was okay again.

"I know," I said. "That's how Miss Kew felt when Lone did it to her."

"What are you?"

"I'll tell you. I'm the central ganglion of a complex organism which is composed of Baby, a computer; Bonnie and Beanie, teleports; Jane, telekineticist; and myself, telepath and central control. There isn't a single thing about any of us that hasn't been documented: the teleportation of the Yogi, the telekinetics of some gamblers, the idio-savant mathematicians, and most of all, the so-called poltergeist, the moving about of household goods through the instrumentation of a young girl. Only in this case every one of my parts delivers at peak performance.

"Lone organized it, or it formed around him; it doesn't matter which. I replaced Lone, but I was too underdeveloped when he died, and on top of that I got an occlusion from that blast from

Miss Kew. To that extent you were right when you said the blast made me subconsciously afraid to discover what was in it. But there was another good reason for my not being able to get in under that 'Baby is three' barrier.

"We ran into the problem of what it was I valued more than the security Miss Kew gave us. Can't you see now what it was? My *gestalt* organism was at the point of death from that security. I figured she had to be killed or it—I—would be. Oh, the parts would live on: two little colored girls with a speech impediment, one introspective girl with an artistic bent, one mongoloid idiot, and me—ninety per cent short-circuited potentials and ten per cent juvenile delinquent." I laughed. "Sure, she had to be killed. It was self-preservation for the *gestalt*."

Stern bobbled around with his mouth and finally got out: "I don't—"

"You don't need to," I laughed. "This is wonderful. You're fine, hey, fine. Now I want to tell you this, because you can appreciate a fine point in your specialty. You talk about occlusions! I couldn't get past the 'Baby is three' thing because in it lay the clues to what I really am. I couldn't find that out because I was afraid to remember that I

had failed in the thing I had to do to save the *gestalt*. Ain't that purty?"

"Failed? Failed how?"

"Look. I came to love Miss Kew, and I'd never loved anything before. Yet I had reason to kill her. She *had* to be killed; I *couldn't* kill her. What does a human mind do when presented with imperative, mutually exclusive alternatives?"

"It—it might simply quit. As you phrased it earlier, it might blow a fuse, retreat, refuse to function in that area."

"Well, I didn't do that. What else?"

"It might slip into a delusion that it had already taken one of the courses of action."

I NODDED happily. "I didn't kill her. I decided I must; I got up, got dressed—and the next thing I knew I was outside, wandering, very confused. I got my money—and I understand now, with super-empathy, how I can win *anyone's* prize contest—and I went looking for a head-shrinker. I found a good one."

"Thanks," he said dazedly. He looked at me with a strangeness in his eyes. "And now that you know, what's solved? What are you going to do?"

"Go back home," I said happily. "Reactivate the super-organism, exercise it secretly in

ways that won't make Miss Kew unhappy, and we'll stay with her as long as we know it pleases her. And we'll please her. She'll be happy in ways she's never dreamed about until now. She rates it, bless her strait-laced, hungry heart."

"And she can't kill your—*gestalt* organism?"

"Not a chance. Not now."

"How do you know it isn't dead already?"

"How?" I echoed. "How does your head know your arm works?"

He wet his lips. "You're going home to make a spinster happy. And after that?"

I shrugged. "After that?" I mocked. "Did the Pekin man look at Homo Sap walking erect and say, 'What will he do after that?' We'll live, that's all, like a man, like a tree, like anything else that lives. We'll feed and grow and experiment and breed. We'll defend ourselves." I spread my hands. "We'll just do what comes naturally."

"But what can you do?"

"What can an electric motor do? It depends on where we apply ourselves."

Stern was very pale. "But you're the only such organism..."

"Are we? I don't know. I don't think so. I've told you the parts have been around for ages—the telepaths, the *poltergeists*. What





was lacking was the ones to organize, to be heads to the scattered bodies. Lone was one, I'm one; there must be more. We'll find out as we mature."

"You—aren't mature yet?"

"Lord, no!" I laughed. "We're an infant. We're the equivalent of about a three-year-old child. So you see, there it is again, and this time I'm not afraid of it: Baby is three." I looked at my hands. "Baby is three," I said again, because the realization tasted good. "And when this particular group-baby is five, it might want to be a fireman. At eight, maybe a cowboy or maybe an FBI man. And when it grows up, maybe it'll build a city, or perhaps it'll be President."

"Oh, God!" he said. "God!"

I looked down at him. "You're afraid," I said. "You're afraid of *Homo Gestalt*."

He made a wonderful effort and smiled. "That's bastard terminology."

"We're a bastard breed," I said. I pointed. "Sit over there."

HE crossed the quiet room and sat at the desk. I leaned close to him and he went to sleep with his eyes open. I straightened up and looked around the room. Then I got the thermos flask and filled it and put it on the desk. I fixed the corner of the rug and put a clean towel at the head of

the couch. I went to the side of the desk and opened it and looked at the tape recorder.

Like reaching out a hand, I got Beanie. She stood by the desk, wide-eyed.

"Look here," I told her. "Look good, now. What I want to do is erase all this tape. Go ask Baby how."

She blinked at me and sort of shook herself, and then leaned over the recorder. She was there—and gone—and back, just like that. She pushed past me and turned two knobs, moved a pointer until it clicked twice. The tape raced backward past the head swiftly, whining.

"All right," I said, "beat it." She vanished.

I got my jacket and went to the door. Stern was still sitting at the desk, staring.

"A good head-shrinker," I murmured. I felt fine.

Outside I waited, then turned and went back in again.

Stern looked up at me. "Sit over there, Sonny."

"Gee," I said. "Sorry, sir. I got in the wrong office."

"That's all right," he said.

I went out and closed the door. All the way down to the store to buy Miss Kew some flowers, I was grinning about how he'd account for the loss of an afternoon and the gain of a thousand bucks.

—THEODORE STURGEON

is fantasy
fast becoming
fact?

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ZEN

By JEROME BIXBY

*Because they were so likable
and intelligent and adaptable
—they were vastly dangerous!*



Illustrated by ASHMAN

IT'S difficult, when you're on one of the asteroids, to keep from tripping, because it's almost impossible to keep your eyes on the ground. They never got around to putting portholes in spaceships, you know—unnecessary when you're flying by GB, and psychologically inadvisable,

besides—so an asteroid is about the only place, apart from Luna, where you can really see the stars.

There are so many stars in an asteroid sky that they look like clouds; like massive, heaped-up silver clouds floating slowly around the inner surface of the vast ebony sphere that surrounds

you and your tiny foothold. They are near enough to touch, and you want to touch them, but they are so frighteningly far away . . . and so beautiful: there's nothing in creation half so beautiful as an asteroid sky.

You don't want to look down, naturally.

I HAD left the *Lucky Pierre* to search for fossils (I'm David Koontz, the *Lucky Pierre*'s paleontologist). Somewhere off in the darkness on either side of me were Joe Hargraves, gadgeting for mineral deposits, and Ed Reiss, hopefully on the lookout for anything alive. The *Lucky Pierre* was back of us, her body out of sight behind a low black ridge, only her gleaming nose poking above like a porpoise coming up for air. When I looked back, I could see, along the jagged rim of the ridge, the busy reflected flickerings of the bubble-camp the techs were throwing together. Otherwise all was black; except for our blue-white torch beams that darted here and there over the gritty, rocky surface.

The twenty-nine of us were E. T. I. Team 17, whose assignment was the asteroids. We were four years and three months out of Terra, and we'd reached Vesta right on schedule. Ten minutes after landing, we had known that the clod was part of the crust of

Planet X—or Sorn, to give it its right name—one of the few such parts that hadn't been blown clean out of the Solar System.

That made Vesta extra-special. It meant settling down for a while. It meant a careful, months-long scrutiny of Vesta's every square inch and a lot of her cubic ones, especially by the life-scientists. Fossils, artifacts, animate life . . . a surface chunk of Sorn might harbor any of these, or all. Some we'd tackled already had a few.

In a day or so, of course, we'd have the one-man beetles and crewboats out, and the floodlights orbiting overhead, and Vesta would be as exposed to us as a molecule on a microscreen. Then work would start in earnest. But in the meantime—and as usual—Hargraves, Reiss and I were out prowling, our weighted boots clomping along in darkness. Captain Feldman had long ago given up trying to keep his science-minded charges from galloping off alone like this. In spite of being a military man, Feld's a nice guy; he just shrugs and says, "Scientists!" when we appear brightly at the airlock, waiting to be let out.

SO the three of us went our separate ways, and soon were out of sight of one another. Ed Reiss, the biologist, was looking

hardest for animate life, naturally.

But I found it.

I HAD crossed a long, rounded expanse of rock—lava, wonderfully colored—and was descending into a boulder-cluttered pocket. I was nearing the “bottom” of the chunk, the part that had been the deepest beneath Sorn’s surface before the blow-up. It was the likeliest place to look for fossils.

But instead of looking for fossils, my eyes kept rising to those incredible stars. You get that way particularly after several weeks of living in steel; and it was lucky that I got that way this time, or I might have missed the Zen.

My feet tangled with a rock. I started a slow, light-gravity fall, and looked down to catch my balance. My torch beam flickered across a small, red-furred teddy-bear shape. The light passed on. I brought it sharply back to target.

My hair did *not* stand on end, regardless of what you’ve heard me quoted as saying. Why should it have, when I already knew Yurt so well—considered him, in fact, one of my closest friends?

The Zen was standing by a rock, one paw resting on it, ears cocked forward, its stubby hind legs braced ready to launch it

into flight. Big yellow eyes blinked unemotionally at the glare of the torch, and I cut down its brilliance with a twist of the polarizer lens.

The creature stared at me, looking ready to jump halfway to Mars or straight at me if I made a wrong move.

I addressed it in its own language, clucking my tongue and whistling through my teeth: “Suh, Zen—”

In the blue-white light of the torch, the Zen shivered. It didn’t say anything. I thought I knew why. Three thousand years of darkness and silence . . .

I said, “I won’t hurt you,” again speaking in its own language.

The Zen moved away from the rock, but not away from me. It came a little closer, actually, and peered up at my helmeted, mirror-glassed head—unmistakably the seat of intelligence, it appears, of any race anywhere. Its mouth, almost human-shaped, worked; finally words came. It hadn’t spoken, except to itself, for three thousand years.

“You . . . are not Zen,” it said. “Why—how do you speak Zen-nacai?”

It took me a couple of seconds to untangle the squeaking syllables and get any sense out of them. What I had already said to it were stock phrases that Yurt

had taught me; I knew still more, but I couldn't speak Zennacai fluently by any means. Keep this in mind, by the way: I barely knew the language, and the Zen could barely remember it. To save space, the following dialogue is reproduced without bumbings, blank stares and *What-did-you-says?* In reality, our talk lasted over an hour.

"I am an Earthman," I said. Through my earphones, when I spoke, I could faintly hear my own voice as the Zen must have heard it in Vesta's all but nonexistent atmosphere: tiny, metallic, cricketlike.

"Eert . . . mn?"

I pointed at the sky, the incredible sky. "From out there. From another world."

It thought about that for a while. I waited. We already knew that the Zens had been better astronomers at their peak than we were right now, even though they'd never mastered space travel; so I didn't expect this one to boggle at the notion of creatures from another world. It didn't. Finally it nodded, and I thought, as I had often before, how curious it was that this gesture should be common to Earthmen and Zen.

"So. Eert-mn," it said. "And you know what I am?"

When I understood, I nodded, too. Then I said, "Yes," realizing

that the nod wasn't visible through the one-way glass of my helmet.

"I am—last of Zen," it said.

I said nothing. I was studying it closely, looking for the features which Yurt had described to us: the lighter red fur of arms and neck, the peculiar formation of flesh and horn on the lower abdomen. They were there. From the coloring, I knew this Zen was a female.

The mouth worked again—not with emotion, I knew, but with the unfamiliar act of speaking. "I have been here for—for—" she hesitated—"I don't know. For five hundred of my years."

"For about three thousand of mine," I told her.

AND then blank astonishment sank home in me—astonishment at the last two words of her remark. I was already familiar with the Zens' enormous intelligence, knowing Yurt as I did . . . but imagine thinking to qualify years with *my* when just out of nowhere a visitor from another planetary orbit pops up! And there had been no special stress given the distinction, just clear, precise thinking, like Yurt's.

I added, still a little awed: "We know how long ago your world died."

"I was child then," she said. "I don't know—what happened."

I have wondered." She looked up at my steel-and-glass face; I must have seemed like a giant. Well, I suppose I was. "This—what we are on—was part of Sorn, I know. Was it—" She fumbled for a word—"was it atom explosion?"

I told her how Sorn had gotten careless with its hydrogen atoms and had blown itself over half of creation. (This the E. T. I. Teams had surmised from scientific records found on Eros, as well as from geophysical evidence scattered throughout the other bodies.)

"I was child," she said again after a moment. "But I remember—I remember things *different* from this. Air . . . heat . . . light . . . how do I live here?"

Again I felt amazement at its intelligence; (and it suddenly occurred to me that astronomy and nuclear physics must have been taught in Sorn's "elementary schools"—else that *my years* and *atom explosion* would have been all but impossible). And now this old, old creature, remembering back three thousand years to childhood — probably to those "elementary schools" — remembering, and defining the differences in environment between *then* and *now*; and more, wondering at its existence in the different *now*—

And then I got my own think-

ing straightened out. I recalled some of the things we had learned about the Zen.

Their average lifespan had been 12,000 years or a little over. So the Zen before me was, by our standards, about twenty-five years old. Nothing at all strange about remembering, when you are twenty-five, the things that happened to you when you were seven . . .

But the Zen's question, even my rationalization of my reaction to it, had given me a chill. Here was no cuddly teddy bear.

This creature had been born before Christ!

She had been alone for three thousand years, on a chip of bone from her dead world beneath a sepulchre of stars. The last and greatest Martian civilization, the *L'hrai*, had risen and fallen in her lifetime. And she was twenty-five years old.

"How do I live here?" she asked again.

I got back into my own framework of temporal reference, so to speak, and began explaining to a Zen what a Zen was. (I found out later from Yurt that biology, for the reasons which follow, was one of the most difficult studies; so difficult that nuclear physics actually *preceded* it!) I told her that the Zen had been, all evidence indicated, the toughest, hardest, longest-lived

creatures God had ever cooked up: practically independent of their environment, no special ecological niche; just raw, stubborn, tenacious life, developed to a fantastic extreme—a greater force of life than any other known, one that could exist almost anywhere under practically any conditions—even floating in midspace, which, asteroid or no, this Zen was doing right now.

The Zens breathed, all right, but it was nothing they'd had to do in order to live. It gave them nothing their incredible metabolism couldn't scrounge up out of rock or cosmic rays or interstellar gas or simply do without for a few thousand years. If the human body is a furnace, then the Zen body is a feeder pile. Maybe that, I thought, was what evolution always worked toward.

"Please, will you kill me?" the Zen said.

I'D been expecting that. Two years ago, on the bleak surface of Eros, Yurt had asked Engstrom to do the same thing. But I asked, "Why?" although I knew what the answer would be, too.

The Zen looked up at me. She was exhibiting every ounce of emotion a Zen is capable of, which is a lot; and I could recognize it, but not in any familiar terms. A tiny motion here, a quiver

there, but very quiet and still for the most part. And *that* was the violent expression: restraint. Yurt, after two years of living with us, still couldn't understand why we found this confusing.

Difficult, aliens—or being alien.

"I've tried so often to do it myself," the Zen said softly. "But I can't. I can't even hurt myself. Why do I want you to kill me?" She was even quieter. Maybe she was crying. "I'm alone. Five hundred years, Eert-mn—not too long. I'm still young. But what good is it—life—when there are no other Zen?"

"How do you know there are no other Zen?"

"There are no others," she said almost inaudibly. I suppose a human girl might have shrieked it.

A child, I thought, when your world blew up. And you survived. Now you're a young three-thousand-year-old woman . . . uneducated, afraid, probably crawling with neuroses. Even so, in your thousand-year terms, young lady, you're not too old to change.

"Will you kill me?" she asked again.

And suddenly I was having one of those eye-popping third-row-center views of the whole scene: the enormous, beautiful sky; the dead clod, Vesta; the little creature who stood there staring at me—the brilliant-ignorant, human-like-alien, old-young creature who

was asking me to kill her.

For a moment the human quality of her thinking terrified me . . . the feeling you might have waking up some night and finding your pet puppy sitting on your chest, looking at you with wise eyes and white fangs gleaming . . .

Then I thought of Yurt—smart, friendly Yurt, who had learned to laugh and wisecrack—and I came out of the jeebies. I realized that here was only a sick girl, no tiny monster. And if she were as resilient as Yurt . . . well, it was his problem. He'd probably pull her through.

But I didn't pick her up. I made no attempt to take her back to the ship. Her tiny white teeth and tiny yellow claws were harder than steel; and she was, I knew, unbelievably strong for her size. If she got suspicious or decided to throw a phobic tizzy, she could scatter shreds of me over a square acre of Vesta in less time than it would take me to yelp.

"Will you—" she began again.

I tried shakily, "Hell, no. Wait here." Then I had to translate it.

I WENT back to the *Lucky Pierre* and got Yurt. We could do without him, even though he had been a big help. We'd taught him a lot—he'd been a child at the blow-up, too—and he'd

taught us a lot. But this was more important, of course.

When I told him what had happened, he was very quiet; crying, perhaps, just like a human being, with happiness.

Cap Feldman asked me what was up, and I told him, and he said, "Well, I'll be blessed!"

I said, "Yurt, are you sure you want us to keep hands off . . . just go off and leave you?"

"Yes, please."

Feldman said, "Well, I'll be blessed."

Yurt, who spoke excellent English, said, "Bless you all."

I took him back to where the female waited. From the ridge, I knew, the entire crew was watching through binocs. I set him down, and he fell to studying her intently.

"I am not a Zen," I told her, giving my torch full brilliance for the crew's sake, "but Yurt here is. Do you see . . . I mean, do you know what you look like?"

She said, "I can see enough of my own body to—and—yes . . ."

"Yurt," I said, "here's the female we thought we might find. Take over."

Yurt's eyes were fastened on the girl.

"What—do I do now?" she whispered worriedly.

"I'm afraid that's something only a Zen would know," I told

her, smiling inside my helmet. "I'm not a Zen. Yurt is."

She turned to him. "You will tell me?"

"If it becomes necessary." He moved closer to her, not even looking back to talk to me. "Give us some time to get acquainted, will you, Dave? And you might leave some supplies and a bubble at the camp when you move on, just to make things pleasanter."

By this time he had reached the female. They were as still as space, not a sound, not a motion. I wanted to hang around, but I knew how I'd feel if a Zen, say, wouldn't go away if I were the last man alive and had just met the last woman.

I moved my torch off them and headed back for the *Lucky Pierre*. We all had a drink to the saving of a great race that might have become extinct. Ed Reiss, though, had to do some worrying before he could down his drink.

"What if they don't like each other?" he asked anxiously.

"They don't have much choice," Captain Feldman said, always the realist. "Why do homely women fight for jobs on the most isolated space outposts?"

Reiss grinned. "That's right. They look awful good after a year or two in space."

"Make that twenty-five by Zen standards or three thousand by ours," said Joe Hargraves, "and I'll bet they look beautiful to each other."

We decided to drop our investigation of Vesta for the time being, and come back to it after the honeymoon. •

Six months later, when we returned, there were twelve hundred Zen on Vesta!

Captain Feldman was a realist but he was also a deeply moral man. He went to Yurt and said, "It's indecent! Couldn't the two of you control yourselves at least a little? *Twelve hundred kids!*"

"We were rather surprised ourselves," Yurt said complacently. "But this seems to be how Zen reproduce. Can you have only half a child?"

Naturally, Feld got the authorities to quarantine Vesta. Good God, the Zen could push us clear out of the Solar System in a couple of generations!

I don't think they would, but you can't take such chances, can you?

—JEROME BIXBY



Wait for Weight

By JACK McKENTY

*Sometimes the best incentive
is to tell a man that success
will throw him out of a job!*

Illustrated by SIBLEY

WHEN Dr. Allport Brinton's alarm clock sounded, it brought madness. It was very clever; it not only rang chimes of amazing penetrating power, it turned on all the lights in the room, closed the window, and started his bath water running. But this morning it was not appreciated. In fact, as Dr. Brinton got out of bed, he silently called down evil on the technician who had built it for him.

The "off" switch was on the wall farthest away from his bed and was controlled by a hairtrigger combination dial that couldn't



be operated by anyone not fully awake. Dr. Brinton fumbled for a while, then gave up and started looking for his bedroom slippers. They had apparently crawled away during the night.

He padded into his bathroom barefoot. He was about to see what a hot bath would do for what he had already diagnosed as a histamine headache when the alarm clock, having decided that anyone who could sleep through ten minutes of chiming was unwakable, stopped chiming, turned off the lights, opened the window, and let all the water out.

Dr. Brinton was walking back toward the light switch when he tripped on his bedroom slippers and fell back into bed. No further invitation was necessary; he slept till noon.

Dr. Brinton unmistakably had a hangover. Considering the party he had attended the night before, it was not surprising. Actually, it was remarkable that he had been able to get out of bed at all. During the fourteen years that the Rocket Research Station had been in operation, the parties that were held every time another test flight resulted in failure had grown from a few drinks in somebody's room to a mammoth bust-up that left the whole place partially paralyzed for days afterward.

First as chief chemist, and later

as director of the Station, Dr. Brinton had attended every one of the scores of parties during every one of the fourteen years. It spoke well for his endurance to say that he was back at his office at one o'clock. Some people didn't make it until the next day.

HIS secretary, who didn't drink, was one of very few who were at work on time. She walked into his office and stood in front of his desk, tapping her foot. Her facial expression showed that she thought people who got drunk at parties were amoral, degenerate, and entirely unfit for administrative positions. Dr. Brinton, who had been mentally comparing the relative merits of Prussic acid and hanging as pain relievers, sat up straight to prove that he was moral, alert, and ready for any problem that might come up. His secretary sniffed to indicate that she didn't believe him. Dr. Brinton dropped his eyes to admit that maybe he wasn't at his best at the moment, but it was only a temporary condition, and by tomorrow he would be okay.

"In two minutes you'll wish you were dead," said his secretary. "Read this."

She handed him a letter. He read it and his knuckles cracked as he gripped the arms of his chair.

"Senator MacNeill coming to

visit *here?*" he cried in alarm. Though his voice was squeaky, he was surprised to hear it at all. "Get me a line to Washington, our top priority, Audrey at the Naval Department."

The call was put through.

"Commander Audrey? This is Brinton at the Station. Joe MacNeill is coming to visit us. Can you head him off? . . .

"Yes, I know, but he's on one of his economy drives. We just did a test yesterday and if he inspects this place now, we won't get enough money to build a pin-ball machine. Delay him a week, anyway . . .

"Well, try. I'll arrange a tour for him as best I can, but if he doesn't come, I'll be much happier. Let me know as soon as possible. Fine. Good-by."

He scribbled a memo and carried it out to his secretary. "Copy of this to all department heads, right away. Phone the commissary and have them get all the decorations taken down in the dining room. Tell them to lay in some steaks for tomorrow. Phone Harry Sparling in Public Relations—alert him V.V.I.P. tomorrow, extra-special tour including all our movies on the subject. I'm going over to the Fuels Department."

Dr. Ferber, head of Fuels, met Dr. Brinton at the door of his lab.

"I just got your memo," he

said. "Is that budget-butcher really coming down here?"

Dr. Brinton nodded his head gently. "I'm afraid so. I came over to see what kind of show we can put on for him."

"We have some samples to run on the indoor motors. There are a couple of loads left for the acceleration sled. And I suppose if we work all night we could get a sergeant-major ready, but if he's on an economy drive that might be too elaborate. Just a view of everybody pouring stuff from one test-tube to another might be best."

"Do the samples and run the sled once," Dr. Brinton said. "That should provide enough fire and noise. The rest of it will have to be fast talk. I think I'll go home to bed."

DR. BRINTON considered himself a methodical man. He had bacon and eggs every morning for breakfast. He always took a vitamin pill with his afternoon coffee. And he was used to exactly eight hours sleep. It was this last habit that caused him to wake up that night at midnight; he had gone to bed at four that afternoon and habit is a hard thing to break. At first he thought it was morning, but a glance at his watch hanging on its illuminated pedestal corrected that.

He grunted, rolled over, and waited for sleep to overtake him again. Nothing happened. He turned and stared at the ceiling for a while. Still nothing; he had not felt so wide awake for a long time. Then he was struck by one of the flashes of inspiration that had made him famous—he would raid the refrigerator.

DOWNSTAIRS, he found that his son Eric had anticipated him by two minutes, and was busy setting the table with cheese, pickles, ice cream, peanut butter, and everything else necessary to keep a sixteen-year-old boy operating at peak efficiency. A pile of books on the table indicated that he had just finished his homework. Dr. Brinton was pleased that his son had worked so late, but the choice of food made him shudder. He rummaged in the refrigerator himself, found a cold pork chop that Eric had somehow overlooked, and bore it to the table in triumph.

"We were dealt a blow today," he said, between mouthfuls.

"Oh?" said Eric, on guard in case it was about his school work.

"Received word that Senator MacNeill is coming here tomorrow. No, today—it's after midnight."

"Oh." It was an "oh" of relief. A senator couldn't be nearly as troublesome as a teacher.

"Don't say 'oh' like that. He'll probably close the Station tight and we'll all be out of work. You don't realize it, but money has been getting harder and harder to cadge for this place. We're practically running only the Fuels department now."

He got up, threw the bone from his pork chop into a garbage pail, washed his hands at the sink, and sat down again.

He continued, "Wait till he finds out about those four reactor rockets that are cooling off on the Moon, waiting for us to get there. I can hear him scream, 'Five million dollars each! Each full of precious equipment, to say nothing of invaluable fissionable material!' And then this place gets shut down."

Eric had a suggestion. "Give him the old routine about how we have to get men to the Moon or the Russians will do it first and use all the equipment we've sent there without even thanking us."

"Umm," said his father, considering. He shook his head finally. "His answer to that is why send good money after bad. No. I just hope he feels better after a steak dinner. Either that or the wings fall off his plane." He smiled wistfully at the thought. "Oh, well," he said, "let's go to bed."

They went their separate ways,

but only Eric went to bed. His father entered the library, sat down, got his pipe going, and began to reread *How to Win Friends and Influence People*.

THE next day saw Dr. Brinton contemplate suicide, homicide, and voting Republican, though not necessarily in that order. The Senator had viewed their most inspiring onward-and-upward movies and merely asked how much they cost to make. He had eaten a huge steak at the commissary, and then inspected the garbage cans for waste. His visits to various departments had been marred by his lack of interest in anything except the number of men employed by each and their average salaries, though he did comment that they all looked hung-over. In the Fuels Department, he had walked out on the demonstrations, interrupting some actual experiments that were going on outside the test room.

Dr. Brinton was now riding in the back of a jeep, explaining to the Senator that nuclear rockets were not too efficient, and the shielding necessary to make them safe for men weighed more than their payload. The Senator noted down the word "inefficient."

A loudspeaker on a pole a little farther down the road interrupted the explanation. "Twenty-five,

twenty-five, twenty-five," it shouted. "Five-nine, eighteen. Five-nine, eighteen. Seventy-three, ten-eight." It began to repeat the message.

The driver, who had slowed while they listened to the message, turned the jeep around and sped them back the other way.

"What in Heaven's name was that?" asked the Senator, who was busy hanging on.

"Twenty-five means emergency," shouted Dr. Brinton. "Five and nine is fire and explosion in the Fuels Department, which is eighteen. Seventy-three is my call number and ten-eight means they want me to get there in a hurry."

For the first time, the Senator looked impressed. Then he grew angry again when his hat blew off and the driver wouldn't stop to go back and get it. The jeep took a shortcut across the concrete fence, and left tire marks in the grass in front of the Fuels Department. Dr. Brinton jumped out and ran into the building, leaving the Senator to argue with the driver about going back for the hat.

The lab outside the test room was dusty and littered with broken glass. Two technicians were receiving first aid for minor cuts, but everyone else seemed to be in an almost holiday mood.

Dr. Ferber saw Dr. Brinton standing in the doorway and

came over to him immediately.

"That telephone operator gets too excited," he said. "There's no fire, and I think it was an implosion, not an explosion. Wrecked our new pressure catalyzer. Harrison's gone to hospital and the two you see are hurt, but none of it's very serious. I suppose Butcher Boy is going to put this down in his little notebook, too."

"If you are referring to me," said the Senator's voice behind them, "I most certainly am going to make a note of it. And I suggest you both start advertising for other jobs."

BRINTON had been indulging in a pleasant little fantasy in which he had cut Senator MacNeill up into twenty-eight pieces, placed them in aluminum cans, and made them radioactive in the Station pile. He was smiling at the newsreel cameras, about to fire the first Senator-powered spaceship in the history of mankind, when his alarm clock, which had maliciously been waiting for just such an opportunity, spoiled his dream by waking him up.

That was how the next day started. It continued in the same vein when, in a fit of petulance, he strode into his clothes closet and kicked the alarm control box, barefoot. He was working the combination dial for the third or

fourth time when he noticed that his feet were getting wet. His kick must have jammed some relays in the control box; the bath water was overflowing. Since the box was sealed to prevent him from fooling with it, he had had to prevent a flood by limping downstairs and pulling the master switch.

With no electricity, his breakfast consisted of cold fruit juice, cold cereal, and cold milk. When he got to his office, he ordered a pot of coffee and made out a requisition for a pipe wrench. If it ever happened again, he was going to shut the water off instead.

His secretary came in with the coffee and poured him a cup.

"I have some letters for you to sign," she said brightly, to cheer him up. Dr. Brinton drank his coffee. "Our new filing system is working very well," she added, pouring him another cup. The doctor's face relaxed a little, but it was because the snow bank in his stomach was beginning to melt. His secretary played her trump. "And somebody from the Fuels Department phoned and said something was passing the yellow line and might make the blue."

She was never sure afterward whether Dr. Brinton had gone around his desk, or over it. She had blinked and by the time her

eyes were open again, he was gone.

Dr. Brinton found a crowd in the indoor test lab, chuckling over the line being drawn by a differential analyzer. He elbowed his way to the front, looked himself, and began a little dance of impatience. The analyzer was connected with linkages to the test stand where a tiny rocket motor was thrusting out a hot blue pencil of flame. The results from the analyzer were plotted as range capability against time on a piece of graph paper which had four curved colored lines overprinted on it. The curved lines were marked in succession: "Earth," "Moon," "Moon" and "Earth."

If the first Earth line, colored red, was passed, the fuel under test could power a rocket to leave Earth, carrying men with it. If the yellow line—the first Moon line—was reached, the rocket could theoretically land men on the Moon. Several rockets, carrying dummy loads, had already tried and failed: their fuels, though the best available, barely reached the yellow line when under test.

The blue—second—Moon line was calculated to indicate an escape from the Moon without refueling, and the last line, in green, was a theoretical powered landing back on Earth.

The pen of the analyzer had already passed the blue line and was more than halfway to the green!

"This is the stuff that was left in the catalyzer after the explosion yesterday!" Dr. Ferber shouted to Dr. Brinton over the roar from the little engine. "It looked as if it would burn, so I tested it. Jackpot!"

"What is it?" asked Dr. Brinton.

"Supposed to be an artificial base for a *perfume*!"

The last word seemed louder because the test rocket just then ran out of fuel and grew silent. The tracing of the pen stopped a fraction short of the green line.

Dr. Ferber continued in his normal voice while he busied himself with the connections of the engine: "We didn't have anything to do to put on a show for MacNeill yesterday, so I told the lads to carry on with experiments of their own. It was Harrison who made this stuff. He was cut by flying glass and landed in the hospital. I phoned there this morning and found the damn fool doctor took his appendix out. Said he figured he might as well while Harrison was in there. He's still under the anesthetic and we won't be able to ask him anything for several hours."

"Doesn't matter," said Dr. Brinton. "We know it works; we have to find out why it works. Got any left? We'll analyze it."

The next few hours saw Dr. Brinton rapidly become a bitter and disillusioned man.

When a qualitative test informed them that the presence of nitrogen meant they were going to have to use an even longer and more laborious process than the ordinary one, he uttered a few sentences that made a couple of nearby German exchange students wonder if perhaps they hadn't a portion missed in the English language learning.

When he found that he had forgotten his pipe at home, and the analysis required too much of their attention to allow him to go home and get it, he quoted a paragraph or two that earned him the undivided attention of everyone in the lab.

But when he took the results over to a calculator and worked them out to carbon 281.6% he had barely started the prologue when frustration overtook him and he subsided, speechless. He was at a loss to say or do anything except mumble that 281.6% was impossible.

DR. FERBER came over and took the paper with the results from him. Everyone in the lab watched while he checked the

calculations patiently.

A delegation minutely checked the apparatus the two doctors had used; it was faultless. One person even went so far as to cast a suspicious look at the big automatic micro-balance standing on its pedestal in the center of the room. He weighed a piece of paper, wrote his name on it in pencil and reweighed it. The difference was satisfactory. For a few moments, they all just stood and looked at each other. Then the whole lot of them set to work.

A junior technician headed for the spectrograph, came back in three minutes with a freshly developed spectral photograph and a puzzled look. He spent some time comparing both of them with the illustrations in a manual entitled *Structural Formulae as Indicated by Spectral Groupings*.

The two German exchange students made a few tries at finding the class of compound. They soon were deep in a technical discussion in their own language, the only recognizable words being "biuret," "dumkopf," and "damn."

A senior research chemist tried crystalizing some and invented an entirely new swear word.

With four helpers, Dr. Brinton and Dr. Ferber redid the combustion analysis in slightly less than twice the time it would have

taken only one of them. Of course they were assured of accuracy; each step was checked at least twice by everyone.

The result was still carbon 281.6%.

Dr. Brinton escaped the ensuing mental paralysis since he had already been through the experience once. He went over and began to study the figures written in on the side of the spectral photograph. Out of little more than idle curiosity, he compared the ratios of the rough quantitative estimate found spectrographically with the more accurate but impossible answer of the combustion micro-analysis.

While he was doing the necessary figuring, he listened sympathetically to the technician. The young man was complaining bitterly about things in general, and chemistry in particular. Chemical reference books came in for a special roasting, because: "either that lousy book is incomplete, or this structural formula is out of this world."

That did it.

Brinton got out a scratch pad and drew a little diagram.

Then he went to talk to Dr. Ferber.

"Would it be possible that Harrison started with a multi-ringed phenol?" he asked. Dr. Ferber nodded. Dr. Brinton showed him the drawing. "Does that

remind you of any geometrical figure?"

Dr. Ferber looked. There was a pause, then his eyes lit up.

"Of course," he said. "Since formulae are usually drawn in one plane, I doubt if anyone ever noticed that before. And when it comes under stress by compression, it's only natural that it should fold." He paused and looked at the calendar. "Four weeks?" he asked.

"That'll do fine," said Dr. Brinton. "I'll arrange the details. You look after the fuel. Harrison can give us the details of this one, but there are probably any number of fuels based on this principal. Some will be even more efficient, too."

He excused himself, went to a phone, and asked for a Washington number. The call was answered.

"Hello, Senator MacNeill?" he said. "How would you like to be guest of honor at a party?"

BRINTON peered through the ring of reporters over to the head table where Senator MacNeill was speaking, and speaking, and speaking.

"He's on his home state," Dr. Brinton said. "About half an hour to go. Now, gentlemen, you were asking about the new fuel. You all received press handouts containing the information. You

will probably receive copies of the Senator's speech. And the broadcast from our first men on the Moon went out over several networks hours ago. It seems to me that you have enough for several stories."

One of the reporters asked bewilderedly, "What is a tesseract? I read the handout twice and I still don't understand."

"A mathematician would be better qualified to explain," said Dr. Brinton, "but I'll try. A tesseract is a fourth dimensional cube. A line has one dimension, a square has two, a cube has three, and a tesseract has four. A cube can be unfolded into six squares, and a tesseract unfolds to eight cubes. The new fuel had a molecular structure resembling an unfolded tesseract. When pressure is applied, it folds up into a tesseract so that it takes up less room and relieves the pressure."

"The practical application is that we can get eight pounds of it into a one pound can. The other seven pounds of it are riding around in the fourth dimension. As soon as it starts to burn, the structure is destroyed, so that it comes back out of the fourth dimension. Several people have assured me that it can't work."

They're probably right, except that it does. Oh, I'll be back in a minute."

He went over to another group and spoke to one of its members. The man addressed nodded his head and left. Dr. Brinton returned.

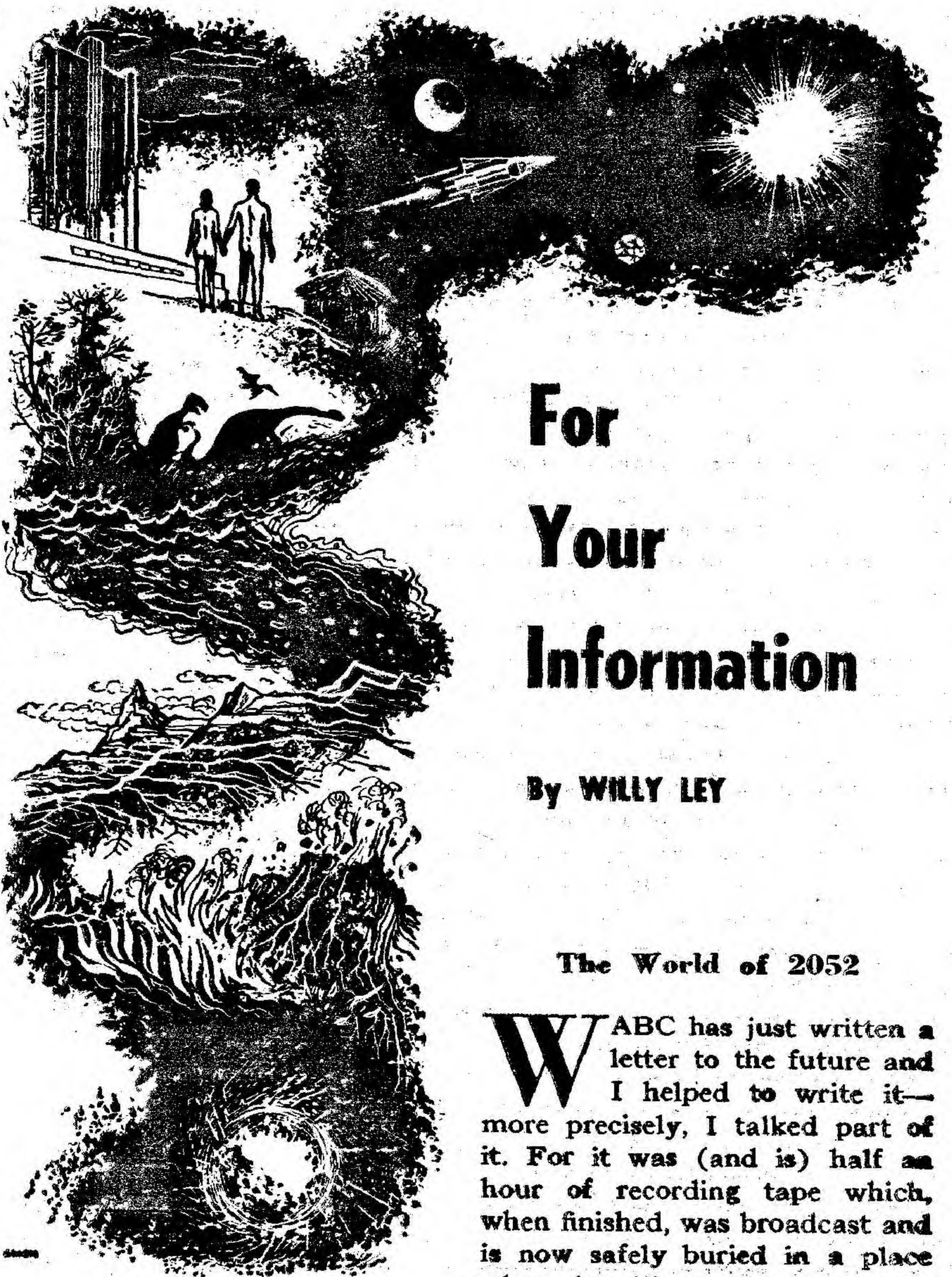
"If there are no more questions, I suggest we do some serious drinking. I am now out of a job and I want to celebrate."

PROMPTLY at seven-thirty, a relay clicked and the alarm clock went into its usual daily routine with the chimes, window, lights, and bath water.

Dr. Brinton woke up enough to reach out a lazy arm and flip a newly installed toggle switch beside his bed. Everything returned to normal. The light and the chimes both faded away, the window reopened, and a soft gurgling came from the bathroom.

A slight gurgling also came from the bed, where Dr. Brinton, with a happy little smile on his face, had gone peacefully back to sleep, perfectly satisfied that he had worked himself into unemployment by finding the fuel that would power spaceships to—and from—any part of the Solar System.

—JACK McKENTY



For Your Information

By **WILLY LEY**

The World of 2052

WABC has just written a letter to the future and I helped to write it—more precisely, I talked part of it. For it was (and is) half an hour of recording tape which, when finished, was broadcast and is now safely buried in a place where it will not deteriorate, to

FOR YOUR INFORMATION

be taken out and rebroadcast a century from now.

Naturally, it is reminiscent of the Westinghouse Time Capsule which was buried on the World's Fair Grounds a dozen years ago, to enlighten the inhabitants of this planet 5000 years from now about the doings of the year 1940. During the same year, a Time Vault was started in North Carolina, intended to preserve for posterity the books which we consider most important in our day.

This idea of writing letters to the future is not exactly new. For centuries, European master builders enclosed documents, contemporary coin of the realm and an occasional chronicle in the foundation stones of buildings, and American builders took over the tradition.

Trouble is that in those cases where the contents were recovered and examined, it turned out that the documents told things which we already knew from other sources, and that the coins were well known to numismatists and often not even rare. Still, one wishes that this habit had been established much earlier, say in Greek or at least Roman times.

But the only Roman example of such a Time Vault was not an intentional one. About half a century ago, the learned world was startled and excited by the

announcement that a rich Roman's private library had been found in Pompeii. It had been buried when Mt. Vesuvius let go in what is probably the most publicized and romanticized volcanic outbreak of all recorded history. The rolls of parchment were charred, of course. They had dried out in the interim and were so fragile that they could not be handled in any usual way. Still, methods of transporting them, unrolling them and finally reading them were worked out. And then it turned out that the original owner of that library had been a fanatic disciple of a small and completely unimportant philosophical school. After all that labor, it was a sad disappointment.

THE so-called Document Cave not far from the Dead Sea in Palestine, which was found recently, promises better results. At the very least, our knowledge of the history of the books of the Old Testament is going to be improved by that discovery. And that Document Cave might even have been meant as a kind of Time Vault, for the documents seem to have been hidden there from contemporaries for the future, although the men who did it may have had only three or four generations in mind—not sixty or more, as it turned out to be.

IN a somewhat larger sense, every book written is a small time capsule. For while a book is primarily addressed to contemporaries, it is expected or hoped to last into the future. I can get first-hand information about the knowledge and beliefs of Gaius Plinius Secundus (Pliny the Elder) directly from the shelves of my own library. It isn't an original, but it is serviceable. Even originals last a long time, though. If I want to find out what the famous Municipal Physician of Zürich, Dr. Konrad Gesner, thought and knew about fossils in 1560, my library will serve, too. And this book was not preserved through the centuries in some Time Vault; it survived through the interest and care of generations of people.

The most interesting contents of any Time Capsule would be those portions in which its originators tell the future finders their guesses about the civilization, habits, etc., of the finders. But, again, it need not be a specific Time Capsule; it can be simply a book which has been preserved.

As has been pointed out in *GALAXY* by L. Sprague de Camp, we are just beginning to reap that kind of harvest from early examples of science fiction. If we are somewhat flabbergasted at the lack of vision of daring of those writers, and more than a

little astounded by the nonsense which we were supposed to indulge in—not that we don't indulge in different kinds of nonsense of our own designing—it should merely prove to us that we should be more daring in some respects and more careful in others.

Now let's see if I can apply that advice myself.

As I told my audience of a hundred years hence, I think—lots of printed paper to the contrary notwithstanding—that cities will not be obsolete. Nor do I think that the wheeled vehicle will be obsolete, having been replaced by the helicopter, or by some other device yet to be invented. Nor do I believe that the day of the printed word has almost reached its end.

Having a little more space here in the magazine than I had time on the air, I would like to elaborate a bit on these statements. With and without reference to atomic bombs, we have been informed that "cities are abnormal." Now, cities had originally the purpose of being trading centers. Later, they also became manufacturing centers. And you can't say that those who settled in the cities did it because of necessity. Then, as now, the majority did it from choice.

It is obviously more convenient to be in the center of things than

in the outskirts. And having lived in the country, I know from personal experience that it is not convenient. If you get there during a heat wave, it may look that way, and the little walk of 5500 feet for a newspaper or some smokes or even your mail, down a winding road, may be pleasant. But try it on a cold winter day, when the road is icy and has eight inches of loose snow on top. Try to take care of unexpected guests, unless your basement is a private grocery store. Try to enjoy (or even be attentive) in a movie if you know that the last bus home comes by just five minutes after the show; especially, if you also know that just the last bus is often early because the driver wants to go home, too.

In spite of what moralists and real estate agents tell us, the country home is convenient only if you also have a city home. And since people have the deplorable habit of looking after their own convenience, cities are neither abnormal nor obsolescent.

ANOTHER item I brought up in my broadcast was transportation. Will people ride in from sixty miles away in their own helicopters? Well, some may, of course, but that isn't the proper answer.

The helicopter, once it gets to be easier to fly than the current

production models, will have a great deal of advantages over the ground car. But it still needs parking space at the other end and the traffic problems of the modern city are not caused by the cars which move, but by those which are parked.

The solution is obviously a type of transportation which does not park, but keeps moving.

Just imagine how easy it would be to get around in New York if all the transportation available were public transportation—subways, elevateds, busses and taxicabs. The remedy for the future might not be up to the engineer only, but to the lawmakers as well.

This is not the place to go into the design of a city free of traffic problems. I just want to add that, while it has been proved that a large city can be supplied by air lift, it is neither a cheap nor a logical method of doing it.

Finally: I do think that the people a hundred years from now will still buy newspapers and read books. I also believe that these books and papers will be printed—presumably with a more lavish use of color than nowadays—on paper. I don't believe in the "electronic device" which replaces the newspaper, nor in the newspaper printed photographically on a piece of plastic the size of a special delivery stamp. All you

have to do is insert it in the projector and the letters will appear on the ceiling of your bedroom. You can read it while having breakfast in bed. Damned inconvenient is all I have to say.

I'll go along with the tape recorder attached to the telephone which will take messages—"the deadline is really today, but since you were kept busy with two television shows and three conferences, it can be extended until Saturday"—while you are away. I go along with that because there you have an electrical device, your telephone, to begin with, and it can be adapted for playback.

But the printed word is superior to any recording device or projector in several respects, each important. You can read it in any position you happen to prefer at the moment. You need no special reconverting tool. No matter how simple, small, light and fool and tinkerproof that device is postulated to be, you can forget or mislay it. And, like anything else, it can run down or go out of order. Also, you can easily add a note or a reminder to the printed word. Furthermore, you can file a piece of newspaper. Of course you can file pieces of sound tape, too, or plastic microslides, but then you need your reconverting device to find out what's on it.

Nor do I think that books will be printed on anything which we would not call paper, even though it may technically be something else. In quite a number of stories, the spaceship pilot looks up the characteristics of a planet in an almanac "printed on indestructible metal foil" and this practice, for all one can tell, was not restricted to the spaceman's almanac in those stories.

Let's see now. My own *Rockets, Missiles and Space Travel* has very nearly reached the bulk where it becomes a little hard to handle. I just measured and weighed it. The dimensions are $8\frac{1}{2} \times 6 \times 1\frac{1}{2}$ inches and its paper is about as thin as it can be and still be decent. In any event, I don't think that metal foil could be any thinner than that paper and still take inscriptions of some kind on both sides. Hence the dimensions would be the same as those of the paper book.

But while the paper book, with binding, weighs two lbs., the metal book, if aluminum, would weigh nine pounds!

I'm all in favor of a non-yellowing, non-cracking permanent paper for books. But no metal foil, please, unless you can come up with a useful lithium alloy of a specific gravity of 0.5 or less.

Well, there you have a discourse on things that won't hap-

pen. Go back to the stories now and see what might.

RED FEATHERS

IF you'll be patient for about 100 seconds, I'll get around to the theme. Those 100 seconds have to be used to lay the groundwork. The subject of today's lecture about surprise developments is a bird.

The name: *Turacus* (or *Corythaix*) *leucotis*.

Common name: touraco.

Habitat: southern Africa.

Date of discovery: not known (at least not to me), but it must have been early, for the bird is not rare.

Coloration: back, bluish-black; tail, ditto, with some green in it; leading edge of wings, bluish-black (minor individual changes); neck and breast, bright green; whitish markings on neck and head; yellow and red crest; main wing feathers, bright red.

Now the story. In 1818, a French explorer by the name of Jules Verreaux was camping in southern Africa. It was during the rainy season, the sky was gray with clouds, water dripped from every branch and every leaf, and the soil was almost too soggy to walk on. It was decidedly the kind of weather for staying indoors, but Jules Verreaux did not. He made short trips of a few

hours' duration at a time, partly because he wanted to see how the wild animals were faring during the rainy season, partly because he was no doubt bored with the unchanging meteorology.

On one of his short trips, he came across a flock of birds which were sitting around in the bushes, dripping with rain water and looking unhappy. When Verreaux approached them, they tried to fly away, but they were too wet to take off.

Verreaux tried to catch one with his bare hands and finally succeeded, but the wet bird struggled free. Verreaux then saw that his hand was dripping with red liquid. His first thought was that he had been pecked by the struggling bird, even though he had not felt any pain and could not find the wound. Upon closer observation, he noticed that the liquid, while red, did not look like blood. It did not seem plausible, but he could only conclude that the color had come off the red feathers of the wet bird. And after his return to France, he reported that there was a bird in South Africa afflicted with a plumage that was not color-fast in the rain.

This, of course, was ridiculous. Color may wash out of cheap manmade fabrics, but not bird feathers, most especially not while said feathers were still attached to a live bird. Just to

prove how ridiculous these claims were, stuffed touracos were taken from the shelves in museums, a red feather or two clipped off and put in a glass of water. The result was as expected: the feathers stayed red and the water stayed clear. So that was that. Verreaux must have made a mistake of some kind. Maybe he had been fooled by the juice of accidentally squeezed red berries.

MORE than four decades had to pass until somebody came forward to defend Verreaux. Gambia was a British colony by then, with a military garrison, and the garrison had a medical staff. One of the members of that staff was a Dr. Hinde, who kept touracos in a large open air enclosure. And Dr. Hinde reported, in 1865, that his touracos, after a bath, stained old newspapers red when they sat down on them to dry. Not only did they stain the papers, Dr. Hinde could actually observe the loss of color and wrote that "the birds nearly washed themselves white in water left for them to drink."

Since this was not a chance observation under difficult circumstances, but something that had been seen at leisure and repeatedly, the fact itself could not longer be doubted. An English chemist by the name of A. H. Church decided to go after the mystery



and came up with a detailed research report that was published in the *Proceedings* of the Royal Society in 1869.

Church had first washed the feathers with alcohol to remove any oil or fat that might cling to them. Then he tested the pigment of the feathers for solubility and quickly found that it dissolved in soap water. He tried ammonia and caustic soda—they both worked.

Proceeding with caustic soda, he accumulated a large quantity of reddish solution and then precipitated the pigment by means of hydrochloric acid. The precipitate was then washed once more with alcohol (in which it did not

dissolve) to remove impurities that might be present. The result of all this was a flaky powder of crimson color which Church then analyzed.

It turned out to be a copper compound; its name became touracine. And touracine, as had been demonstrated under strict laboratory conditions, was easily soluble in any alkaline liquid.

Church's report was most satisfactory to a chemist, but the naturalists were not happy with it. All right, you could dissolve touracine with the aid of soap or alkali in the laboratory. But it did not rain soap suds in southern Africa. It had also been demonstrated that neither rain water, nor distilled water, nor tap water dissolved any touracine. Yet Verreaux's touracos had dripped red in the rain. And Dr. Hinde's touracos had washed most of the touracine out of their red feathers with their drinking water.

Zoological handbooks listed the observed facts without offering any explanation. Apparently there wasn't any. Long after Church's careful chemical work, in about 1925, a German biologist, Dr. Ingo Krumbiegel, decided that the purpose of a mystery is its solution. He read everything that had been reported about the touraco and the behavior of the copper compound in its red feathers, and he thought

that he found a hint in Church's report.

It said that "ordinary soap, or ammonia or caustic soda or any other alkali tested" made the touracine dissolve. Of all the things mentioned, only ammonia was a possibility in the forest and plains of southern Africa. It does occur in Nature in traces. The problem was whether traces were enough.

KRUMBIEGEL went to work systematically, beginning with distilled water. No result. Tap water was next, then boiling water, both distilled and tap. Negative. He weighed some feathers down with wire and immersed them in water for a week. Still negative. Then ammonia, household strength of a few parts in a hundred. Positive, as expected. Then ammonia diluted to two parts in a thousand. Still positive—strongly positive, in fact. Dr. Krumbiegel thinned the solution some more. When he reached a "concentration" of one part of ammonia in two million parts of water, he stopped. The result was still positive and a one-to-two-million ratio certainly was a "trace."

Ammonia, then, was the answer. Verreaux's touracos had been in the underbrush close to the ground, and rain water which drips from branch to branch is

sure to pick up some ammonia. Not much—an expert estimate said “around one part in a million”—but Dr. Krumbiegel had just demonstrated to himself that one part in two million was enough. And Dr. Hinde’s touracos probably had had several parts in a thousand in their drinking water, for caged birds don’t worry where their droppings land. They don’t know, naturally, that their droppings contain ammonia.

Once a touraco has lost the touracine of its red feathers, it stays discolored until the next moulting period, when brightly colored new feathers begin to sprout. As far as the body chemistry of the bird is concerned, the whole is a way of ridding the body of a copper compound which would be poisonous to the organism if it were not changed into the non-toxic touracine. Normally it would be lost along with the feathers during the next moult. But because it happens to be soluble, it can be lost before the next moult.

That purely incidental fact created the zoological riddle that ended up in making the touraco famous as the only bird that isn’t color-fast.

“PI”

AFTER my piece about the string around the equator

(one yard added) appeared, I have been asked what value for “pi” should be used to calculate the distance precisely. Well, that depends, of course, on the degree of precision you want. The customary value of 3.1416 is perfectly fine for all but astronomical calculations. To fourteen places the value is:

3.14159265358979

and that is good enough to obtain the circumference of a circle the size of the equator to one-millionth of an inch.

THE way to remember pi to fourteen places is to memorize the sentence: “How I want a drink, alcoholic, of course, after the heavy chapters involving quantum mechanics.” It not only works, it probably is by a famous author, Sir James Jeans. At least others have credited him with it, though he himself never claimed authorship.

Pi has been calculated to several hundred decimal places. In 1873, the British mathematician William Shanks published the figures for 707 places, but it later turned out that he made a mistake at about the 510th place. Nowadays, electronic calculators could extend it as far as one would want them to, but there is really no practical reason for doing it.

—WILLY LEY

ANY QUESTIONS?

Is it possible that there are dark or black planets in our solar system and, if so, how would astronomers detect such a planet?

*Mildred Moore
116 William Street
Hightstown, N. J.*

It is quite certain that there is no black planet of a size worth mentioning in our solar system, at least not inside the orbit of Uranus. If a planet really absorbed all the light from the Sun that falls upon it, it would still betray its presence by its gravitational action. The movements of the other known planets near to it would be different. In fact, for a long time both Neptune and Pluto, although not invisible, played the rôle of such "black planets." They were detected by their influence on the orbits of the planets near them.

On January 27, 1950, a Japanese astronomer saw an explosion on Mars. Do you know the cause of it?

*Judy Johns
3106 Canfield Niles Rd.
Youngstown 11, Ohio*

Naturally, I don't know the cause, but I'm willing to make a guess. If that had been a vol-

canic eruption, it should have lasted for some time. But it did not. A number of astronomers, prompted by the report from Japan, looked for it and failed to see it. It is probable, therefore, that what the Japanese astronomer saw was the impact of a large meteorite. Since Mars is close to the Asteroid Belt, it should be hit by considerable chunks of matter much more frequently than Earth's. In the last case of that kind on Earth (Eastern Siberia in 1947), an enormous column of smoke and dust formed immediately after impact, but it lasted less than twelve hours. The "explosion" on Mars was probably the same thing.

Could you explain to me why exactly does a Möbius Strip have only one side? Secondly, are there such things as a Klein's bottle and a Tesseract? If there are, what are they?

*Danny Cohen
4 Magnolia Avenue
Larchmont, N. Y.*

(Virtually the same letter was received from Gregory Christy of 720 Mill St., Porterville, Calif., and from John J. Wolschleger, U.S.N., Quonset Point, Rhode Island.)

First: yes, there is such a

thing as a Klein's Bottle. I am not sure whether I should also say that there is a Tesseract, for a Klein's Bottle can actually be built, while a Tesseract can only be represented. But let's begin with the Möbius Strip and a mention of the branch of mathematics to which it belongs, namely *analysis situ*, or topology, also called rubbersheet geometry, in descending line of dignity.

Take a sheet of paper and make a few crosses at random, on both sides. Those crosses you can connect by straight or wavy lines without going over an edge are obviously on the same side of the paper. If you paste a strip of paper together so that it forms a cylinder, you find that your crosses are either on the outside of the cylinder or on the inside. But if, in pasting, you give it the Möbius half-twist, you'll find that you can connect them all. Therefore, it has only one side.

For your amusement, draw the centerline and then cut carefully along the centerline. The result will puzzle you no end.

Similarly, Klein's Bottle, though obviously a solid body, has only one side. If you want to make one, use something that can be shaped easily, for example self-setting clay. (No

pattern on flat paper is possible.)

While the Strip and the Bottle actually exist, the Tesseract is merely a concept, arrived at by the following reasoning: here we have a one-dimensional line a . Four such lines form a two-dimensional square, a^2 , which is bounded by four lines, and has 4 vertices (corners). Four such squares form the three-dimensional cube, a^3 , which is bounded by six squares, has 12 edges and 4 vertices.

The four-dimensional cube, called Hypercube or Tesseract, would be mathematically described as a^4 and we can state that it should be bounded by 8 cubes, have 16 vertices, 24 faces and 32 edges. But since it is supposed to be four-dimensional, we obviously can't make one.

"I must take exception to your statement in the June 1952 issue of *GALAXY* that the chances of finding intelligent life on other planets are excellent. You have no doubt read du Douy's Human Destiny; it contains a calculation that the probability of even a simple protein molecule's formation on an Earthlike planet—that is, this one—is approx. one in 10^{321} . Let's say that he has made a slight error on the order of

10^{300} . That would still leave the probability of a protein molecule's appearance on Earth about one in 10^{21} . For the sake of simplicity in calculation, assume that our galaxy contains 10 billion Earthlike planets; the chance of finding life would still be only one in 10^{11} , a rather insignificant probability. To assume that life will appear on a planet, or even one per cent of the planets, where conditions are similar to those on Earth, is therefore not quite reasonable.

W. E. Miller
64 Norris Avenue
Haworth, N. J.

I have read *Human Destiny* and I count the time spent with that book as one of the more or less lost weekends of my life—loss of time being the most evident result in the battle between reason and mysticism.

If the probability of the formation of a protein molecule were one in 10^{321} as du Nouy decreed, or merely one in 10^{21} as you find more likely, the conclusion would be inevitable that it didn't happen at all. Not even on Earth. Those botanical parks, zoological gardens, aquaria and mass meetings are just illusions.

Seriously, du Nouy's calculation is completely shattered by the existence of plant life

on Mars, something that is generally accepted as a result of observational evidence. Speaking of Earth alone, it could be asserted that the geraniums and the oysters, the canary birds and their keepers are not illusions; in short, that the fantastically low probability of the formation of a protein molecule came true in this particular case which, therefore, had to be unique. But if you find that it came true on two planets in the same solar system, you either have to stretch credulity beyond its admittedly high elastic limit, or else you conclude that the original assertion must be wrong.

It could be wrong in two ways: either because it simply happens not to be true because the probability of the formation of protein molecules under proper conditions is much higher; or else it could be wrong because there is an additional factor which operates to invalidate the low probability.

That additional factor was pointed out more than half a century ago by the great Swedish astrophysicist Svante Arrhenius. Arrhenius pointed out that the size of the spores of most bacteria is such that for them the light pressure of a nearby star is stronger than

the gravitation of the same star. Hence they could drift through space in opposition to gravitational fields.

Arrhenius also pointed out that such spores could stand free space conditions and that, just under these conditions, their life processes would be slowed down to such an extent that they could stay alive for thousands of years.

In that case, life had to originate only once to spread through the whole Galaxy in time—and who could say that it had originated on Earth?

Nor does it seem likely that the probability of protein molecule formation is actually so low. It has been shown in the laboratory that under the influence of ultra-violet light from the Sun, a number of very interesting compounds will form from nothing more exotic than water, carbon dioxide and ammonia. Some of these compounds are sugars. Others might very well be building blocks of proteins, for they came in various stages of complexity.

Actually, these substances are quickly destroyed by micro-organisms. But if there are no micro-organisms yet, these simpler substances may well continue building up—into micro-organisms.

Since I place du Nouy's conclusions with those that "proved" the steamship, airplane and rocket couldn't work, I still maintain that the probability of life on other planets is high.

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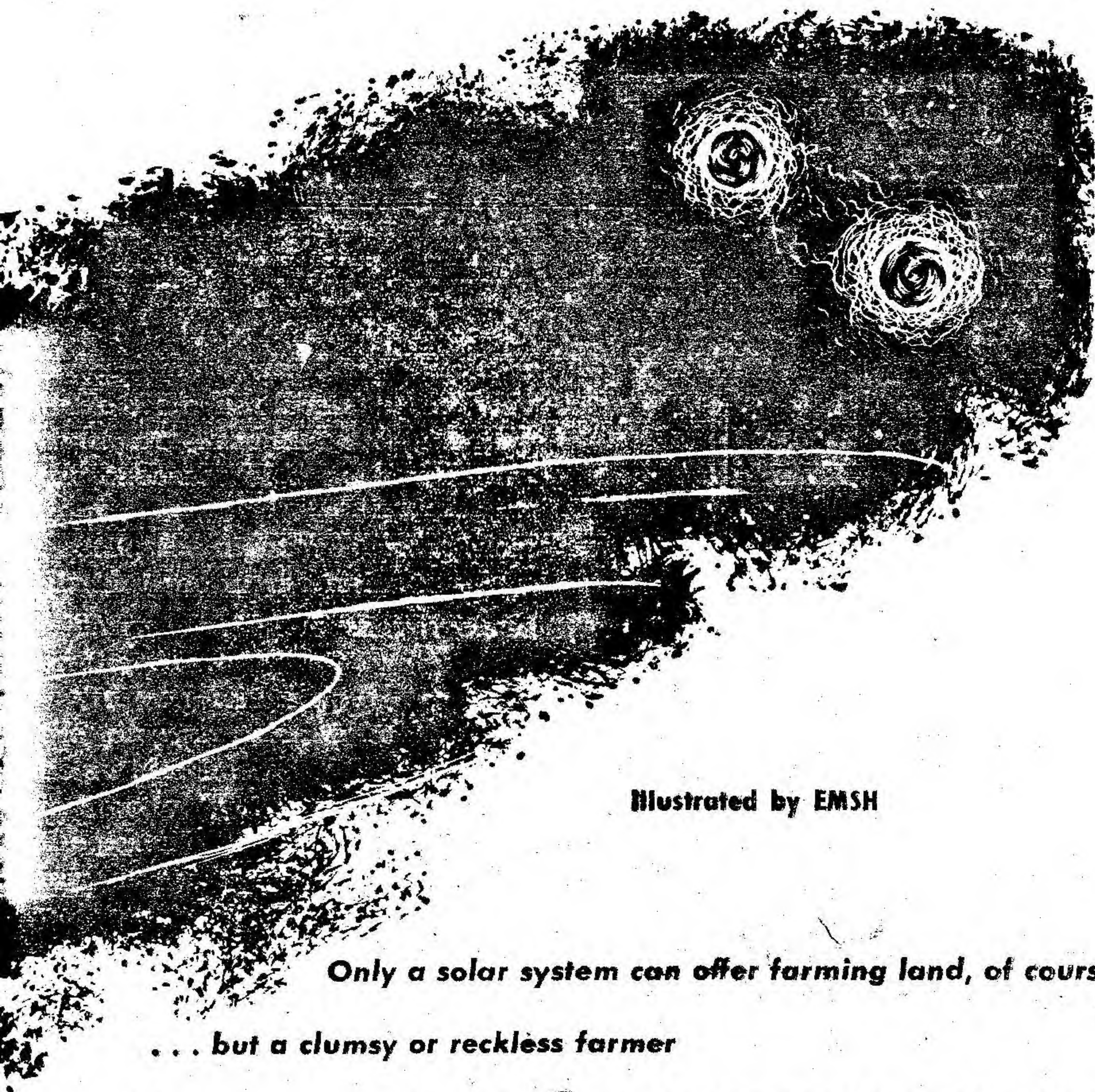
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Halo



By HAL CLEMENT

GALAXY SCIENCE FICTION



Illustrated by E.M.S.H.

Only a solar system can offer farming land, of course

... but a clumsy or reckless farmer

can turn any green planet into a dust bowl!

“YOU disappoint me,” the class superintendent said with some feeling. “I have a personal as well as a professional dislike of wastefully run farms, and you seem to

have furnished a prime example.” He paused briefly, watching in silence as the spheroidal forcing beds drifted smoothly about their central radiator. “Of course, I would be much more sympathe-

tic with you if your own ill-advised actions were not so largely responsible for this situation." He checked his young listener's half-uttered protest. "Oh, I realize that youngsters have to learn, and experiment is the only source of knowledge; but why not use the results of other people's experiments? This sort of thing has happened before, I think you'll find."

"I didn't know." The answer was sullen despite the grudging respect. "How was I supposed to?"

"Did you get an education or not?" There was some heat in the query. "I can't imagine what the primary teachers do these days. Even though you are so young, I understood that you had some qualifications and even a bit of promise in agriculture. That's why I thought you could be trusted without supervision for a few years. Am I to assume that you became dissatisfied with the yield of this farm?"

"Of course. Why else study agriculture?"

"Until you can answer that for yourself, I won't try to. Tell me in detail what you did. Did you try to step up the output of the central radiator?"

"What do you think I am?" The younger being's indignation flared abruptly.

The other remained calm and

exhibited faint traces of amusement, permitting the feeling to show in his answer rather more plainly than was strictly tactful.

"Don't boil your crust off. You might not be able to spare it next time you go in to harvest. People still do try the stunt I mentioned, you know. Every now and then it works for someone after a fashion, so the rest feel it's still worth trying. If it wasn't that, just what did you do? You're missing a culture unit, if I remember this solar system correctly."

THE student took a moment to find just the right words. "One of the lots seemed to be practically ideal. When it first solidified, it was just far enough from the radiator and just large enough to retain a thin surface film of light elements; and it responded beautifully to culturing with water-base growths. On the colder ones, by the way, I had good luck with ammonia cultures."

"Quite possible, in that sort of bed. I noticed a couple of them were bare, though. Was that another result of this experiment of yours?"

"Indirectly, yes." The young farmer looked a trifle apprehensive. "There was another plot, a good deal farther out and colder than my ideal one. But it was too

hot for ammonia growths and too small to furnish the pressure they seem to need—at least the ones I'm familiar with." The addition was made hastily.

"I judged that it should have a good supply of food elements, cooling where it did; and since it wasn't doing well where it was, I thought it would be a good idea to move it farther in."

The listener's manner lost some of its amused aspect.

"Just how did you decide to go about that? The energy involved would have demanded several times the mass of your own body, even with total conversion—which I can't believe you've mastered."

"I don't suppose I have. It seemed to me that the unit itself could furnish the mass without serious loss, though."

"I see." The comment was grim. "Go on."

"Well, I went in and set up a conversion reaction. I touched it off as well as I could on the forward side of the unit, though that was a little hard to arrange—the thing was spinning like mad, as most of them do. Maybe that was the reason I let a little too much mass get involved, or maybe the globe wasn't as massive as I had thought."

"You mean you were uncertain of its mass? Is something wrong with your perceptive fac-

ulties as well as your judgment? Just how old are you, anyway?"

"Fifteen." The sullenness, which had begun to depart from the youngster's tone as he warmed to his narrative, returned in full strength. The questioner noted it and realized that he was not being as tactful as he might be; but under the circumstances he felt entitled to a little emotion.

"Fifteen years on what scale?"

"Local—this furnace, around the mass-center of the system."

"Hmph. Continue."

"Most of the sphere was volatilized, and most of what wasn't was blown completely out of the system's gravitational influence. The rest—well, it's still circling the furnace in quite a wide variety of orbits but it's not much good to anyone."

THERE was a pause while the nearly useless outermost unit swung beneath the two speakers, then on to the far side of the glowing sphere of gas that held it with unbreakable fingers of gravity. The supervisor was not actually boiling—that would be difficult even for a body composed largely of methane, oxygen, and similar solids when it is at a temperature of about half a degree absolute—but his temper was simmering. After a moment he spoke again.

"Let me get this straight. You

sent a slave with a message that your farm had gotten out of hand and that you would like advice. Am I to understand that you spent so much time ruining one of your units that some of the others developed culture variations whose taste didn't appeal to you? I'm afraid my sympathy grows rapidly less."

"It's not that I don't like the stuff; it's that I can't eat it." The youngster must have been angry, too; there was no other imaginable reason why he should have made a statement at once so true in fact and so misleading in implication. The superintendent, swallowing the implication whole, permitted the remains of his temper to evaporate completely.

"You can't eat it? That is really too bad. Pardon me while I go to sample some of this repulsive chemical—or perhaps you would like to come along and show me what you have been eating. There is hardly enough drift in this area to support you, particularly with a decent-sized crew of slaves. What have you been feeding them? Perhaps you ought to let someone else take over this farm and get yourself a research job out in one of the drift clouds, soaking up your nourishment from a haze of free atoms ten parsecs across for a few years. You youngsters!"

"I've been eating from the am-

monia units. So have the slaves."

"Very well, then I shall look over your water culture, which by elimination must be the one that's been giving trouble. On second thought, you needn't come along. It's the third plot from the furnace. I can find my way." He moved off abruptly, not even waiting for an answer.

And the student, with no slightest shadow of an excuse, simply because of his own childish loss of temper, let him go without a word of warning.

It might, of course, have made no difference if he had spoken. The superintendent was annoyed, too, and might understandably have chosen to ignore his junior. His attention, as he permitted himself to fall toward the central radiator, was divided between his own irritation and the condition of the various plots. Only gradually did the latter feeling predominate.

HE had to admit the outermost was too cold for much chemical action except actual life processes which were too slow to be useful. The fact that the youngster he had left above had induced anything at all to grow there was at least one point to his credit. It swung past only once while he was falling by its orbit. Though his gravity-given speed was slow, its speed was

slower—and it had farther to go.

The next two he had noted earlier were bare of useful growths. He remembered now that the student had admitted this fact to be an indirect result of his experiment. The superintendent could not see the connection. The plots themselves, on closer inspection, seemed physically undamaged, and the student himself could not possibly have eaten them both clean, no matter what his hunger. Of course, a crowd of slaves might—but he was not going to accuse anybody yet of letting slaves get that far out from under control. They were not even allowed to approach a culture plot in person, being fed from its produce by their master.

The plots themselves were large bodies, though not the largest in the system, with their solid bulks veiled under mile after mile of hydrogen compounds. The superintendent's senses probed in vain for the enormously complex compounds that were the preferred food of his kind. Several much smaller bodies were gravitating about each of these plots, but none was large enough to hold the light elements in the liquid or gaseous form necessary for food culture.

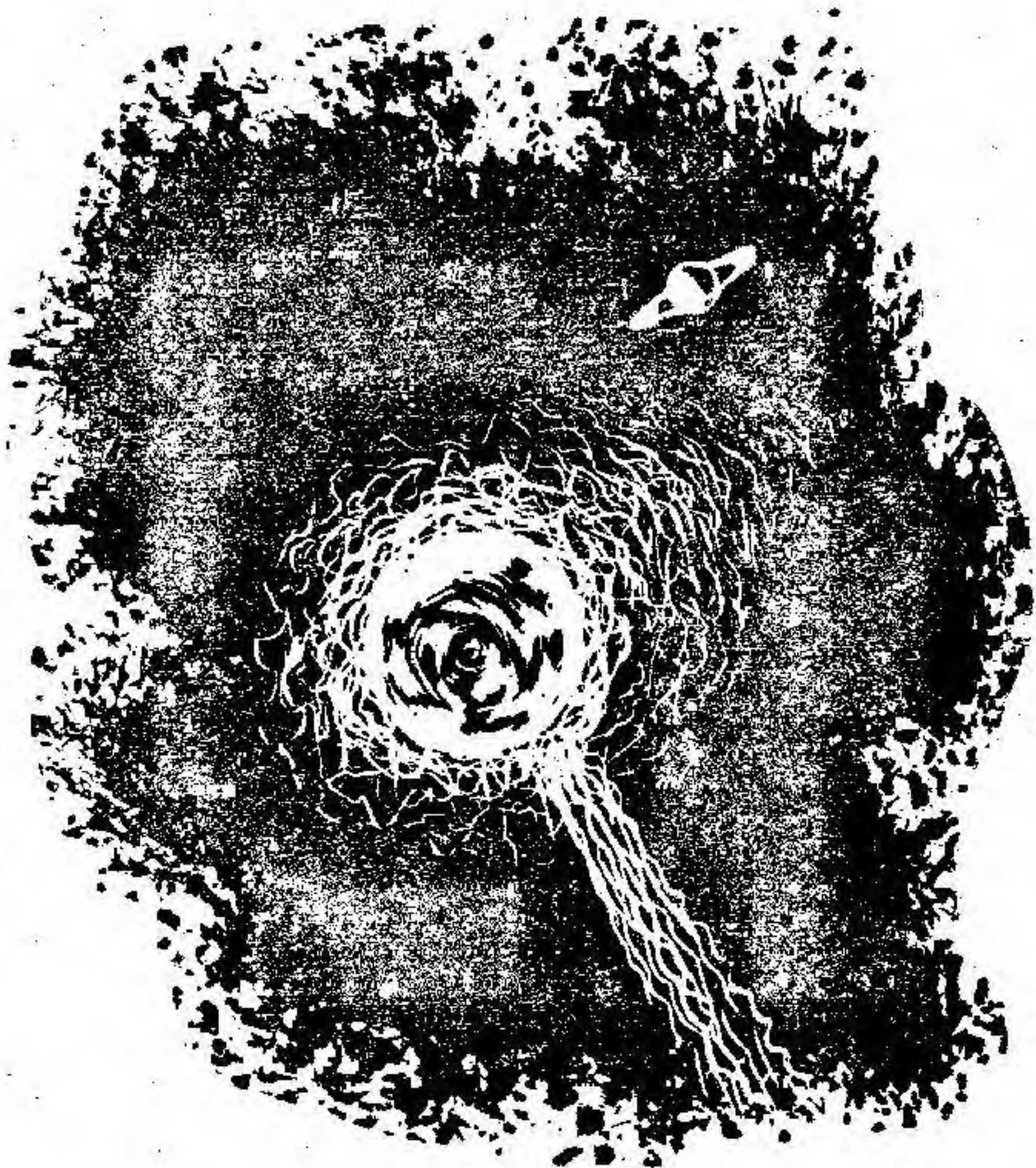
The next unit had the merit of interesting appearance, if nothing else. In addition to the more

or less standard quota of bodies circling it, it possessed a regular halo of minute particles traveling in a solidly interwoven maze of orbits just outside the atmosphere. On the surface, and even in the atmosphere itself, its cultures were flourishing. The superintendent paused to take a sample, and had to admit that once again the youngster had not done too badly.

His temper cooling, he rode the farm plot most of the way around its orbit, taking an occasional taste and growing calmer by the moment. By the time he left the limits of his atmosphere, he was almost his normal self.

This, however, did not last long enough even for him to get rid of the globe's orbital speed, to say nothing of resuming his drop toward the Sun. He had slanted some distance inward and fallen well behind the ringed sphere when his attention was drawn to another, much smaller object well to one side of his line of flight.

Physically, there was little remarkable about it. It was less massive even than his own body, though a short period of observation disclosed that it was in an orbit about the central furnace, just as the farm plots were. Sometimes its outline was clear, at others it blurred oddly. Its brightness flickered in an appar-



ently meaningless pattern. Merely on its physical description, there was nothing remarkable about it, but it seized and held the superintendent's puzzled attention. Off his planned course though it was, he swung toward it, wondering. The student had mentioned no friends or co-workers—

Gradually, details grew clearer and the superintendent's feelings grew grimmer. He did not like to believe what he saw, but the evidence was crowding in.

"Help! Please help! Master!"

THE bubble of horror burst, and one of anger grew in its place. Not one of his own kind, injured or dying and an object of terror and revulsion thereby;

this thing was a slave. A slave, moreover, well within the limits of the farm, where it had no business to be without supervision; a slave who dared call on him for help!

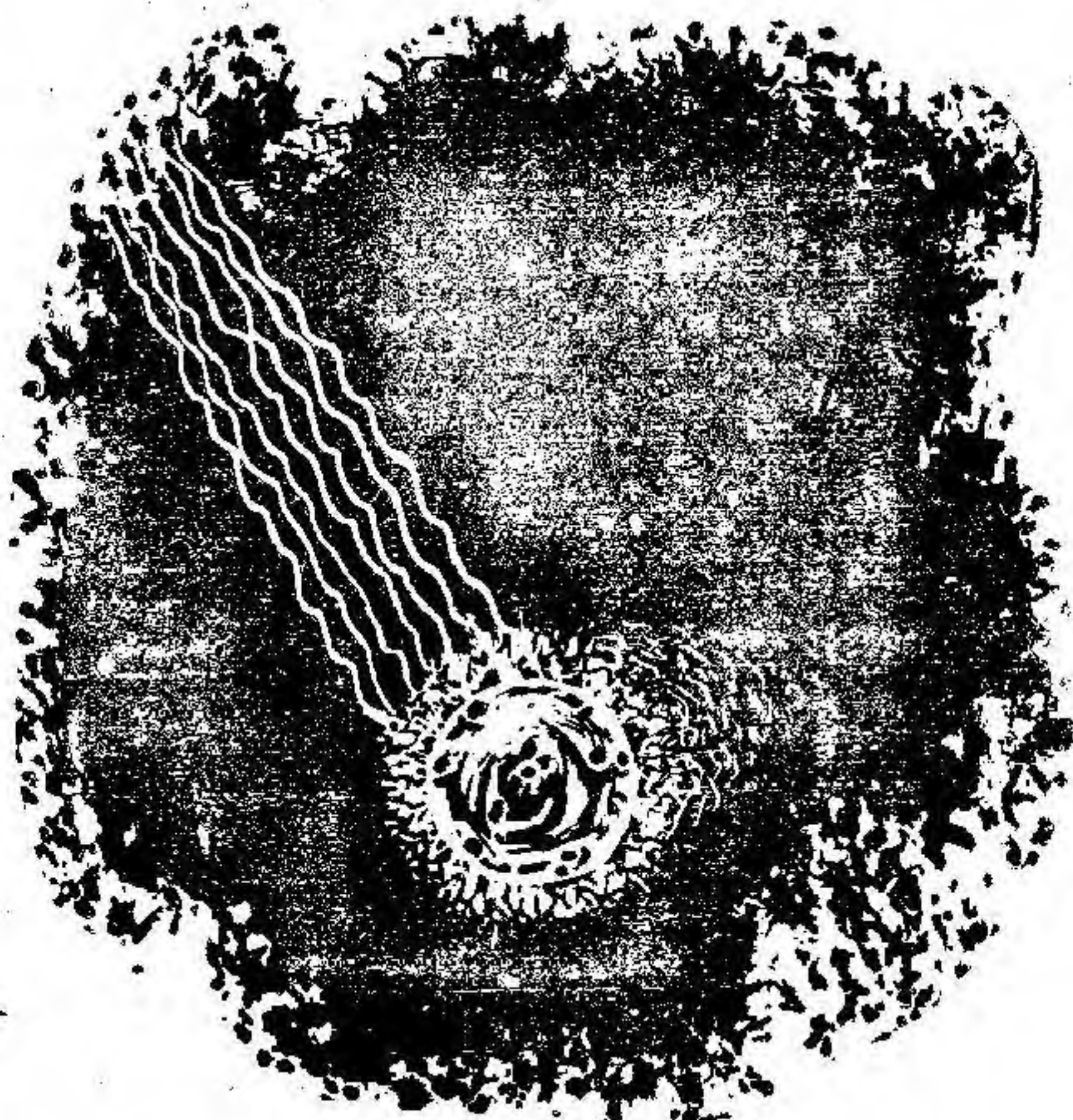
"What are you doing here?" The superintendent sent the question crackling along a tight beam toward the apparently helpless creature. "Did you enter this region without orders?"

"No, Master. I was . . . ordered."

"By whom? What happened to you? Speak more clearly!"

"By—I cannot, Master. Help me!" The irregular flickering of the slave's auroral halo brightened fitfully with the effort of radiating speech.

Unsympathetic as the superintendent normally was to such be-



ings, he realized that help must be given if he were to learn anything. Conquering a distinct feeling of repugnance, he moved up beside the slave to investigate its injuries. He expected, naturally, to find the visible results of a thorough ion-lashing, that being the principal occupational hazard faced by the slaves; but what he actually saw almost made him forget his anger.

The unfortunate creature's outer crust was *pitted*—dotted and cratered with a pattern of circular holes which resembled nothing the superintendent had ever encountered. He knew the long, shallow scars of an ion-lashing and the broad, smoothed areas which showed on the crust of one of his people when close exposure to a sun had boiled away portions of his mass. These marks, however, looked almost as though the slave had been exposed to a pelting by granules of solid *matter*!

A ridiculous thought, of course. The stupidest slave could detect and avoid the occasional bits of rock and metal which were encountered in the interstellar void. After all, they had the same sensory equipment and physical powers as the masters. An unprejudiced judge might even have said they were of the same species as the masters.

Whatever had caused the crea-

ture's injury, there was little that could be done for it. Grudgingly, inspired far more by curiosity than by sympathy, the superintendent did that little, supplying hydrocarbons and other organic matter lately skimmed from the ringed planet.

Food, however, was not enough. Bits of extraneous metal were imbedded in its body, altering the precise pattern of charged metal nodes that spelled life to these beings. Some of its own field nodes had apparently been chipped or blown away, and others were discharged. The creature's body was only a fraction of its normal size—the regular reserve of “food” compounds that ordinarily made up so much of even a slave's bulk had long since been consumed or had evaporated.

There was no doubt that it was dying. But there was some chance that it might gain strength enough to impart information if it were fed. It was—sparingly, of course.

“No sense wasting food on a slave that's about to die,” the superintendent explained without brutality.

“Certainly not, Master,” the slave agreed without resentment.

“**W**HAT happened to you?” the superintendent repeated. The slave was in no condition

to be coherent; but a lifetime of conditioning brought some order to its agony-dazed mind, and it answered.

"I was ordered to the inner plots — to harvest." The word-symbols came haltingly, but with sufficient clarity to be unmistakable, shocking as their implication was.

So the student had trusted slaves near a food supply! Perhaps that accounted for the two stripped planets.

"You went to harvest when a young fool like this orders it?"

"He was a master, and he gave the order. Many of us went; many of us have been going for years—and seldom returning. We did not wish it, Master, but he ordered it. What could we do?"

"You could have asked the first superintendent who came here whether it was better to disobey a Prime Order or a young master."

"You are the first to come, Master, as far as I know. And the young master said we were not to speak of this order to anyone. It is only because you command me to speak that I do so now—that and the fact that there is little more that he could do to me, anyway."

The overseer ignored the pointed closing sentence. "You say many of you have been ordered to do this, but few have returned

from the errand? What happened to them? What happened to you?"

"They die. I did not know how; now I suppose it must be—this way."

There was a pause, and the supervisor was moved to sarcasm. "I suppose they are struck by meteoric particles, as you seem to have been. Do slaves absorb personal characteristics such as stupidity from their masters? Could you not dodge the meteors?"

"No, not all of them. The region near the central furnace has more of such matter than any other place I have ever seen. Some pieces are iron, some are of other matter; but they cannot be avoided. They strike too hard. They cannot be absorbed in normal fashion, but simply boil off one's body material into space. The shock is so tremendous that I, at least, could do nothing toward recovering the material until it had dissipated beyond hope of salvage. That is the reason so much of my mass is gone; it was not merely starvation.

"Some of the other slaves did better than I—as I said, some of them have survived—but others did much worse. They would dive in toward the furnace, and their bodies would come falling back out in just about the shape I am."

"And still he sends his slaves

in to harvest?"

"Yes. We did not do too badly, actually, on the largest plots; but then he got interested in the others farther in. After all, they're hotter. He ventured in himself almost to the orbit of the plot that was destroyed—did you know that?—but came out very quickly and sent us on all such journeys thereafter.

"We—or, rather, those who preceded me—cleaned off the next inner plot, the fourth from the central furnace, fairly well, though the loss of slaves was high. Then he wanted to start on the third. I was one of the first to work on this project.

"I did not expect to live, of course, after what I had heard from the others; but the order came, and I let myself fall toward the sun. My orbit passed close to the greatest of the plots, which the master has been harvesting himself, and I hoped to strengthen myself with a little food from it as I passed."

THAT confession showed how certain the slave felt of his own imminent death, as well as the state of demoralization into which the student's activities had permitted his servitors to fall.

"But I did not dare take any food when the time came," the slave went on feebly. "As I passed through the region where the de-

stroyed plot had been, drifting particles began to grow more numerous. At first there would be an occasional bit of stone or iron, which I could dodge easily. Then they came in twos and threes, and sometimes I would have to change an escape curve in mid-maneuver. Then they came in dozens and clusters, and at last I could avoid them no longer. I was struck several times in rapid succession.

"For a moment I almost turned back—I had never dreamed that anything could feel like that—and then I remembered the order and went on. And I was struck again, and again, and each time the order faded in my mind. I reached the orbit of the fourth planet, crossed it—and turned out again. It didn't seem to help; I was still being pelted. For a time I must have almost lost orientation; but at last I won out to a place near the orbit of the giant planet. That was where I remembered the order again.

"I had never disobeyed a master before, and I didn't know what to do, or say, or think. I'd start back toward the Sun, and remember what had happened, and come back out. Then I'd remember the master, and head in again. I didn't dare go out in the cold where he would be waiting. I didn't dare dive back into that storm of rock and metal from

the old fifth planet. But I had to do something. I couldn't float by the orbit of the Giant Planet forever. He would find me there sooner or later, and that would be worse than if I had come out to him. I had to think."

That word struck the superintendent like a shock. The very idea of a slave's thinking—making a decision for himself concerning an action he was to perform—was repugnant to a member of the dominant race. They preferred to think of their slaves as mindless creatures relying on their masters for the necessities of existence—a comforting fiction that had been maintained for so many rotations of the Galaxy that its originators had come to believe it themselves. He had suspected that this particular slave must be an unusual specimen in many ways; now he was sure of it.

It was this that kept him silent while the creature paused, visibly collected its waning energies, and resumed the tale.

"I found what I thought was the answer at last. Since the tremendous number of particles must have come from the farm that had been blown up, it seemed likely that their orbits would be more or less controlled by that and would have at least a slight family resemblance. If I were to take up a powered, nearly

elliptical path through that region, matching velocities with most of them instead of falling in a practically parabolic orbit across their path, I should be able to avoid the worst of the blows."

WEAKLY, the shattered creature shuddered and paused, mustering strength to continue.

"I had about made up my mind to try this when I detected another slave inbound," it went on "and it occurred to me that two would be better than one. If one died, at least the other could learn from what had happened. I caught him easily since he was in free fall and explained the idea. He seemed willing to follow any suggestion, not thinking for himself at all, so he went with me.

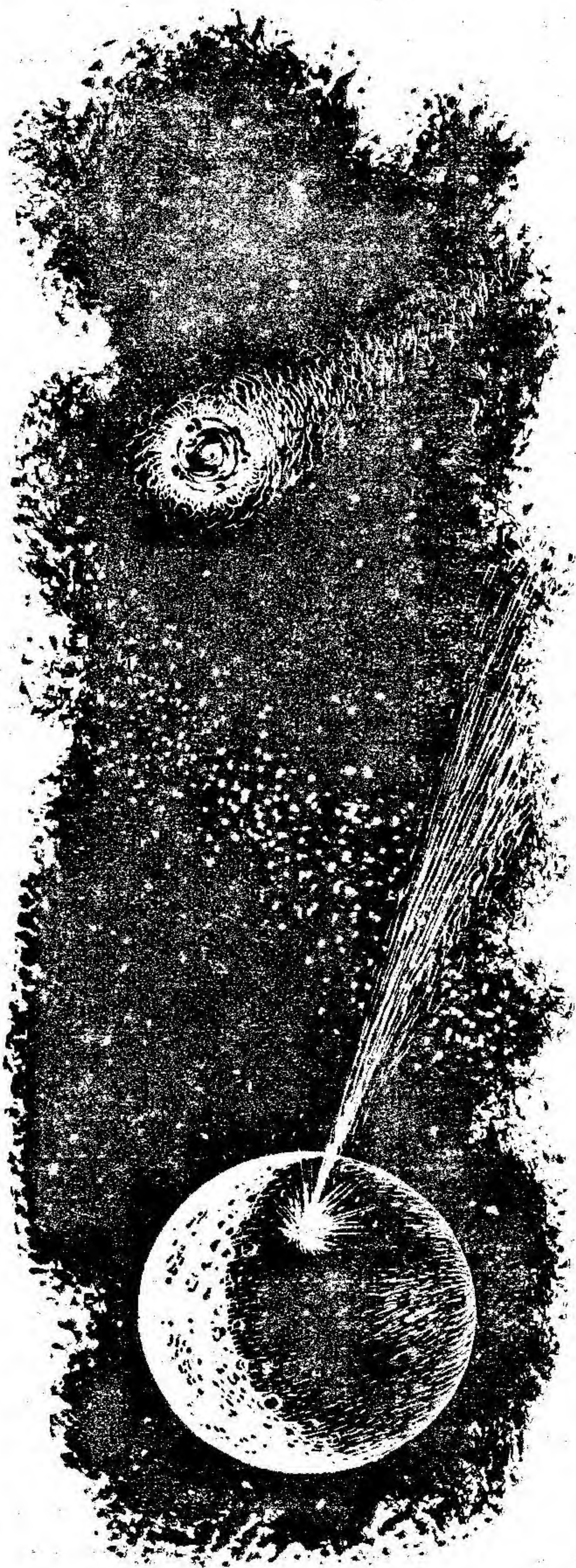
"For a while it worked. We got inside the orbit of the fourth planet without being hit more than a few times each—that was harder on me than on him, because I'd already been hurt quite a lot on the first trip. Into that level, a great deal of the wreckage is formed of quite large particles, anyway; it's easy to see and avoid. Farther in, though, where most of the heavy stuff either never went or was cleared out by collision with the inner planets in a few million of their revolutions, there was much more

extremely fine stuff. It actually seems to increase in concentration near the sun. Maybe radiation pressure has something to do with it.

"Anyway, we began to take a bad beating again. It was a little better than before. My idea must have had something to it, but it still wasn't good. The other slave wasn't used to it, but it still wasn't good. The other slave wasn't used to it, either, and lost control of himself just as I had. We were almost to the third farm plot then, but he must have gone completely blind from pain. He apparently never sensed the food so near by—that plot is incredibly rich.

"He went blundering squarely into another, useless plot that accompanies the third one in its orbit; an object too small to hold culture material in that temperature range, though still several hundred times the diameter of my body or his. He rammed it hard, and the energy involved in matching velocities was more than enough to volatilize his mass completely. The object was pretty well scarred with impact craters, but he made one of the neatest.

"I was close enough then to the third planet to start harvesting—at least, I would have been under normal circumstances. I tried, but couldn't concentrate on



one course of action long enough. The bombardment was endless. There are simply no words to describe what it was like. I was not twenty of its own diameters from the most amazingly rich farm plot I have ever seen, and was not able to touch a *bit* of it!

"It had been so long since it was harvested that substances completely strange to me had developed in its surface layers. There were carbohydrates, of course, and light-element oxides and carbonates which anyone would expect; but there were proteins more fantastically complex than anyone could well imagine. Their emanations nearly drove me wild. They must have been building up and breaking down at incredible speed at that temperature—I had quite an atmosphere out, as a result of boiling off surface matter to use up incoming radiant energy—and they had evolved to an unheard-of degree. And I couldn't get a taste!

"I could sense them, though, and in spite of the pain of the meteor bombardment, I stayed near the planet, vacillating as I had done before, for a couple of hundred of its trips around the Sun. That may seem like a short time, but it was long enough to ruin my body past saving. It was only when my senses began to fail that I was able to turn away

from it and fight my way out this far. I just managed to get into a stable orbit that would keep me clear of that hellish halo of planet fragments, and every now and then I succeeded in mustering enough energy to call for help, but I knew it was useless. Even had you come much sooner, it would still have been too late for me.

"I live to warn you, however. *Do not go within the orbit of the old fifth planet!* Do not even look within it, for if you sense what lies on that unharvested third world, you will be drawn to your doom as surely as I was ordered to mine!"

THE slave fell silent, and the superintendent pondered its tale as they drifted on about the Sun. He could not, offhand, think of any adequate punishment for the student whose recklessness had brought about this state of affairs. The mere cruelty of ordering endless crowds of slaves to nearly certain death did not affect him particularly; but the waste of it did, very much. To him the thought of hundreds of lifeless bodies drifting endlessly about the Sun, boiling off a little more of their masses with each perihelion passage until nothing was left but a loose collection of high melting-point pebbles, was a painful picture of economic loss.

The fact that the best farm plot in the system had apparently become unattainable was also to be considered, and the driving of at least one slave to the extreme of thinking for himself was not to be ignored.

Of course, everything should be checked before confronting the student with such charges. Only the last, after all, could be considered as yet a matter of objective knowledge.

The overseer moved abruptly away from the slave—Sunward. The dying creature, seeing him depart, called once more for aid, and was silenced instantly and permanently by a slashing beam of ions. For an instant the overseer regretted the impulsive act—not from gratitude for the warning, to which he attached little weight and which was part of a slave's duty, but simply because it was impulsive rather than reasoned. But then he reflected that the creature could probably not have told much more anyway, even if it had survived until his return.

He was in no hurry. He let the gravity of the central furnace draw him in to the orbit of the Giant Planet, his senses covering the half-billion-mile sphere of space ahead where death was reputed to lurk.

At this range, all seemed innocuous. He watched the inner

planets circling rapidly in their paths—even the giant one made most of a revolution during his fall—and noted that the slave had spoken the truth about a companion body to the third planet. But space seemed otherwise empty.

He did not completely abandon caution, however. What had proven fatal to slaves might be inconvenient or even dangerous to a master.

HE stopped at the fifth planet's orbit and began a more minute examination of that suspicious volume of space.

The small bodies were there, all right. Thousands of them, even though he was not trying to detect anything less than a twentieth of his own diameter. They did show a rather vague preference for the orbit of the old fifth planet, as the slave had said. The greater number circled between the present fourth and fifth orbits, at any rate. There seemed no reason why he could not match velocities well enough to keep out of trouble. Why, chance alone could be trusted to protect him from collision with a few thousand asteroids, when they were scattered through something like ten-to-the-twenty-fourth-power cubic miles of space!

Still, there was little wisdom in going into possible danger with-

out a very sound reason. It would be well to judge from his present position if such reason existed. His finer senses could easily operate at the half billion miles that separated him from the farthest point of the third planet's orbit. So, holding his position, he focused his attention on the elusive farm plot in question.

Being so close to the central furnace, it revolved rapidly. He faced somewhat the same problem in examining it that a man would have trying to recognize a friend on a merry-go-round—assuming that the friend were spinning in his seat like a top at the same time.

It took the superintendent only a few revolutions of the body to adjust to this situation, however, and as details registered more and more clearly on his consciousness, he began to admit grudgingly that the slave had not exaggerated.

The plot was fabulous!

Substances for which he had no name abounded, impressing themselves on the analytical sense that was his equivalent of both taste and smell. Strange as they were, he could tell easily that they were foods—packed with available energy and carrying fascinating taste potentialities, organized to a completely unheard-of degree. They were growths of a type and complexity

which simply never had a chance to evolve on the regularly harvested worlds of the Galaxy.

The overseer wondered whether it might not be worth while to let other plots run wild for a few years. His principal vice, by the standards of his people, was gluttony; but the most ascetic of his species would have been tempted uncontrollably by that planet.

He almost regretted the few tons of food he had taken on from the ringed planet—though he had, he told himself quickly, sacrificed much of that in helping the slave and would lose still more if he decided actually to penetrate into the high-temperature zones near the Sun.

Huge as his mass was, his normal temperature was so low that life processes went on at an incredibly slow pace. To him, a chemical reaction requiring only a few millennia to go to completion was like a dynamite explosion. A few pounds of organic compounds would feed his miles-thick bulk for many human lifetimes of high activity.

In short, the slave had been quite right.

ALMOST involuntarily, rationalizing his appetite as he went, the superintendent permitted himself to drift into the asteroid zone. With only the smallest part of his attention, he

assumed a parabolic, free-fall orbit in the general plane of the system, with its perihelion point approximately tangent to the orbit of the third planet. At this distance from the Sun, the difference between parabolic and circular velocities was not too great to permit him to detect even the tiniest particles in time to avoid them. That fact, of course, changed as he fell sunward.

Perhaps he had been counting on a will power naturally superior to that of the slave who had warned him. If so, he had forgotten the effects of an equally superior imagination. The pull of the third planet was correspondingly stronger and, watching the spinning globe, he was jarred out of an almost hypnotic trance by the first collision. It awakened him to the fact that his natural superiority to the slave race might not be sufficient to keep him out of serious trouble.

The space around him—he was now well inside the orbit of the fourth planet—was literally crowded with grain-of-dust meteors, each, as he had seen on the slave's crust, able to blast out a crater many times its own volume in a living body. Individually, they were insignificant; collectively, they were deadly.

His attention abruptly wrench-
ed back to immediate problems

of existence, the superintendent started to check his fall and veer once more toward the safe, frozen emptiness of interstellar space. But the spell of the gourmet's paradise he had been watching was not that easily thrown off. For long moments, while the planet circled its primary once and again, he hung poised, with gluttony and physical anguish alternately gaining the upper hand in a struggle for possession of his will. Probably he would have lost, alone; but his student did have a conscience.

"Sir!" The voice came faintly but clearly to his mind. "Don't stay! You mustn't! I should never have let you come—but I was angry! I know I was a fool; I should have told you everything!"

"I learned. It was my own fault." The superintendent found it curiously difficult to speak. "I came of my own free will and I still think that plot is worth investigation."

"No! It's not your own free will—no will could remain free after seeing what that planet has to offer. I knew it and expected you to die—but I couldn't go through with it. Come, and quickly. I will help."

THE student was in an orbit almost identical with that of the superintendent, though still

a good deal farther out. Perhaps it was the act of looking at him, which took his attention momentarily from the alluring object below, that made the older being waver. Whatever it was, the student perceived the break and profited by it.

"Don't even look at it again, sir. Look at me, and follow—or if you'd rather not look at me, look at *that!*"

He indicated the direction plainly, and the dazed listener looked almost involuntarily.

The thing he saw was recognizable enough. It consisted of a small nucleus which his senses automatically analyzed. It consisted of methane and other hydrocarbons, some free oxygen, a few other light-element com-



pounds, and had nuggets of heavier elements scattered through it like raisins in a plum pudding. Around it for thousands of miles there extended a tenuous halo of the more volatile of its constituent compounds. The thing was moving away from the Sun in an elliptical orbit, showing no sign of intelligent control. A portion of its gaseous envelope was driven on ahead by the pressure of sunlight from below.

It was a dead slave, but it could as easily have been a dead master.

A dead slave was nothing; *but the thing that had killed it could do the same to him.*

It was the first time, in his incredibly long life that the *personal* possibility of death had struck home to him; and probably nothing less than that fear could have saved his life.

With the student close beside, he followed the weirdly glowing corpse out to the farthest point of its orbit; and as it started to fall back into the halo of death girdling that harmless-looking star, he pressed on out into the friendly darkness.

Perhaps some day that third planet would be harvested; but it would not be by one of his kind—not, at least, until that guarding haze had been swept up by the planets that drifted through its protecting veil.

IT was not a very good group, Wright reflected. That always seemed to be the case. When he had luck with observing weather, he had no one around to appreciate the things that could be seen. He cast a regretful glance toward the dome of the sixty-inch telescope, where a fellow candidate was taking another plate of his series, and wondered whether there were not some better way than part-time instructing to pay the expenses of a doctorate program.

Still, the night was good. Most of the time in the latitude—

“Mr. Wright! Is that a cloud or the Aurora?”

“If you will stop to consider the present position of the Sun below the horizon,” he answered indirectly, “you will discover that the patch of light you are indicating is directly opposite that point. It lies along the path of the Earth’s shadow, though, of course, well beyond it. It is called the *Gegenschein* and, like the Zodiacal Light, is not too commonly visible at this latitude. We did see the Light some time ago, if you remember, on an evening when we started observing earlier. Actually, the *Gegenschein* is a continuation of the luminous band we call the Zodiacal Light. The latter can sometimes be traced all the way around the sky to the point we

are now watching."

"What causes them?"

"The most reasonable assumption is that they are light reflected from small, solid particles—meteors. Apparently a cloud of such matter extends outward for some distance past the Earth's orbit, though just how far, it is hard to say. It grows fainter with distance from the Sun, as would be expected, except for the patch we call the *Gegenschein*."

"Why the exception?"

"I think one of you can answer that."

"Would it be for the same reason that the full Moon is so much more than twice as bright as either quarter? Simply because the particles are rough, and appear dark in most positions because of the shadows of irregularities on their own surfaces—shadows which disappear when the light is behind the observer?"

"I think you will agree that that would account for it," Wright said. "Evidently the meteors are there, are large compared to wavelengths of visible light, and form a definite part of the Solar System. I believe it was once estimated that if the space inside the Earth's orbit contained particles one millimeter in diameter and five miles apart, they would reflect enough light to account for what we are observing. They might, of course,

be smaller and more numerous. Only that amount of reflecting surface is necessary."

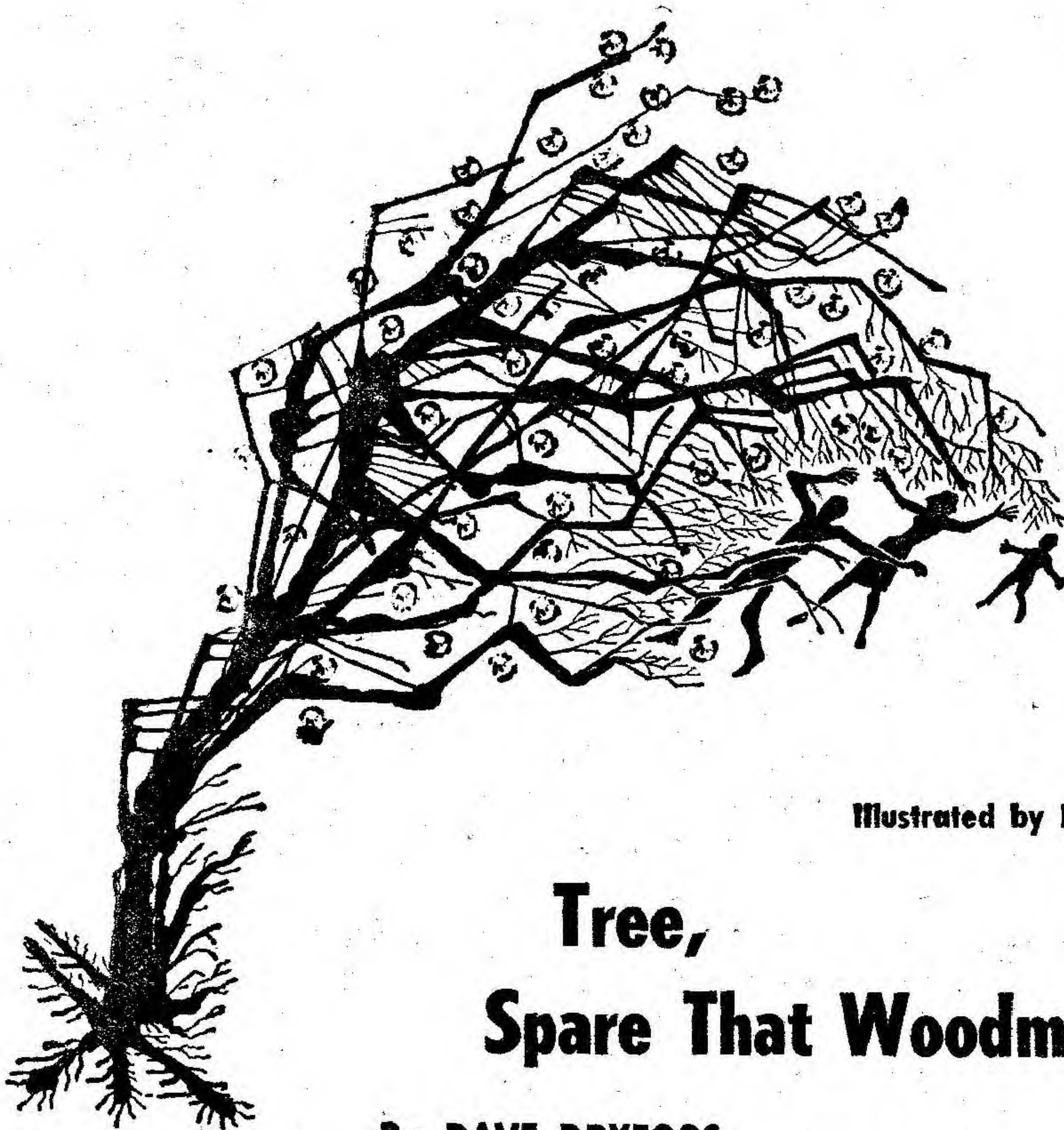
"You had me worried," another voice broke in. "I'd been hearing for years that there would be little reason to fear collision with meteors when we finally get a rocket out of the atmosphere. For a moment, I thought a cloud such as you were working up to would riddle anything that got into space. One pinhead every five miles isn't so bad, though."

"There is a fairly good chance of collision, I would say," returned Wright, "but just what damage particles of that size would do, I am not sure. It seems rather likely that they would be volatilized by impact. How the hull of a rocket would react, we will have to find out by experience. I wouldn't mind taking the risk myself. I think we can sum up the greatest possibilities by saying that the meteoric content of the Solar System has and will have nothing but nuisance value to the human race, whether or not we ever leave our own planet."

A streak of white fire arced silently across the sky, putting a fitting period to the subject.

Wright wondered whether it would appear on his friend's photographic plate.

—HAL CLEMENT



Illustrated by FRIES

Tree, Spare That Woodman

By DAVE DRYFOOS

*The single thing to fear was
fear — ghastly, walking fear!*

STIFF with shock, Naomi Heckscher stood just inside the door to Cappy's one-room cabin, where she'd happened to be when her husband

discovered the old man's body.

Her nearest neighbor — old Cappy—dead. After all his wire-pulling to get into the First Group, and his slaving to make a

farm on this alien planet, dead in bed!

Naomi's mind circled frantically, contrasting her happy anticipations with this shocking actuality. She'd come to call on a friend, she reminded herself, a beloved friend—round, white-haired, rosy-cheeked; lonely because he'd recently become a widower. To her little boy, Cappy was a combination Grandpa and Santa Claus; to herself, a sort of newly met Old Beau.

Her mouth had been set for a sip of his home brew, her eyes had pictured the delight he'd take in and give to her little boy.

She'd walked over with son and husband, expecting nothing more shocking than an ostentatiously stolen kiss. She'd found a corpse. And to have let Cappy die alone, in this strange world . . .

She and Ted could at least have been with him, if they'd known.

But they'd been laughing and singing in their own cabin only a mile away, celebrating Richard's fifth birthday. She'd been annoyed when Cappy failed to show up with the present he'd promised Richard. Annoyed—while the old man pulled a blanket over his head, turned his round face to the wall, and died.

Watching compassionately, Naomi was suddenly struck by the matter-of-fact way Ted examined

the body. Ted wasn't surprised.

"Why did you tell Richard to stay outside, just now?" she demanded. "How did you know what we'd find here? And why didn't you tell me, so I could keep Richard at home?"

She saw Ted start, scalded by the splash of her self-directed anger, saw him try to convert his wince into a shrug.

"You insisted on coming," he reminded her gently. "I couldn't have kept you home without—without saying too much, worrying you—with the Earth-ship still a year away. Besides, I didn't know for sure, till we saw the tree-things around the cabin."

The tree-things. The trees—that were-not. Gnarled blue trunk half-hidden by yellow leaf-needles stretching twenty feet into the sky. Something like the hoary mountain hemlocks she and Ted had been forever photographing on their Sierra honeymoon, seven life-long years ago.

Three of those tree-things had swayed over Cappy's spring for a far longer time than Man had occupied this dreadful planet. Until just now . . .

The three of them had topped the rise that hid Cappy's farm from their own. Richard was running ahead like a happily inquisitive puppy. Suddenly he'd stopped, pointing with a finger she distinctly recalled as needing

thorough soapy scrubbing.

"Look, Mommie!" he'd said. "Cappy's trees have moved. They're around the cabin, now."

He'd been interested, not surprised. In the past year, Mazda had become Richard's home; only Earth could surprise him.

But, Ted, come to think of it, had seemed withdrawn, his face a careful blank. And she?

"Very pretty," she'd said, and stuffed the tag-end of fear back into the jammed, untidy mental pigeon-hole she used for all unpleasant thoughts. "Don't run too far ahead, dear."

But now she had to know what Ted knew.

"Tell me!" she said.

"These tree-things—"

"There've been *other* deaths! How many?"

"Sixteen. But I didn't want to tell you. Orders were to leave women and children home when we had that last Meeting, remember."

"What did they say at the Meeting? Out with it, Ted!"

"That—that the tree-things think!"

"But that's ridiculous!"

"Well, unfortunately, no. Look, I'm not trying to tell you that terrestrial trees think, too, nor even that they have a nervous system. They don't. But—well, on Earth, if you've ever touched a lighted match to the leaf of a

sensitive plant like the mimosa, say—and I have—you've been struck by the speed with which *other* leaves close up and droop. I mean, sure, we know that the leaves droop because certain cells exude water and nearby leaves feel the heat of the match. But the others don't, yet they droop, too. Nobody knows how it works . . ."

"But *that's* just defensive!"

"Sure. But *that's* just on Earth!"

"All right, dear. I won't argue any more. But I still don't understand. Go on about the Meeting."

"Well, they said these tree-things both create and respond to the patterned electrical impulses of the mind. It's something like the way a doctor creates fantasies by applying a mild electric current to the right places on a patient's brain. In the year we've been here, the trees—or some of them—have learned to read from and transmit to our minds. The range, they say, is around fifty feet. But you have to be receptive—"

"Receptive?"

"Fearful. That's the condition. So I didn't want to tell you because you *must not* let yourself become afraid, Naomi. We're clearing trees from the land, in certain areas. And it's their planet, after all. Fear is their weapon and fear can kill!"

"You still—all you men—should have let us women know! What do you think we are? Besides, I don't really believe you. How can fear kill?"

"Haven't you ever heard of a savage who gets in bad with his witch-doctor and is killed by magic? The savage is convinced, having seen or heard of other cases, that he can be killed. The witch-doctor sees to it he's told he *will* be killed. And sometimes the savage actually dies—"

"From poison, I've always thought."

"The poison of fear. The physical changes that accompany fear, magnified beyond belief by belief itself."

"But how in the world could all this have affected Cappy? He wasn't a savage. And he was elderly, Ted. A bad heart, maybe. A stroke. Anything."

"He passed his pre-flight physical only a year ago. And—well, he lived all alone. He was careful not to let you see it, but I know he worried about these three trees on his place. And I know he got back from the Meeting in a worried state of mind. Then, obviously, the trees moved—grouped themselves around his cabin within easy range. But don't be afraid of them, Naomi. So long as you're not, they can't hurt you. They're not bothering us now."

"No. But where's Richard?"

Naomi's eyes swept past Ted, encompassing the cabin. No Richard! He'd been left outside . . .

Glass tinkled and crashed as she flung back the cabin door. "Richard! Richard!"

Her child was not in sight. Nor within earshot, it seemed.

"Richard Heckscher! Where are you?" Sanity returned with the conventional primness. And it brought her answer.

"Here I am, Mommie! Look-out!"

He was in a tree! He was fifteen feet off the ground, high in the branches of a tree-thing, swaying—

For an instant, dread flowed through Naomi as if in her bloodstream and something was cutting off her breath. Then, as the hands over mouth and throat withdrew, she saw they were Ted's. She let him drag her into the cabin and close the broken door.

"Better not scare Richard," he said quietly, shoving her gently into a chair. "He might fall."

Dumbly she caught her breath; waiting for the bawling out she'd earned.

But Ted said, "Richard keeps us safe. So long as we fear for him, and not ourselves—"

That was easy to do. Outside, she heard a piping call: "Look at

me now, Mommie!"

"Showing off!" she gasped. In a flashing vision, Richard was half boy, half vulture, flapping to the ground with a broken wing.

"Here," said Ted, picking up a notebook that had been on the table. "Here's Cappy's present. A homemade picture book. Bait."

"Let me use it!" she said. "Richard may have seen I was scared just now."

Outside again, under the tree, she called, "Here's Cappy's present, Richard. He's gone away and left it for you."

Would he notice how her voice had gone up half an octave, become flat and shrill?

"I'm coming down," Richard said. "Let me down, Tree."

He seemed to be struggling. The branches were cage-like. He was caught!

Naomi's struggle was with her voice. "How did you ever get up there?" she called.

"The tree let me up, Mommie," Richard explained solemnly, "but he won't let me down!" He whimpered a little.

He must not become frightened! "You tell that tree you've got to come right down this instant!" she ordered.

She leaned against the cabin for support. Ted came out and slipped his arm around her.

"Break off a few leaves, Richard," he suggested. "That'll

show your tree who's boss!"

Standing close against her husband, Naomi tried to stop shaking. But she lacked firm support, for Ted shook, too.

His advice to Richard was sound, though. What had been a trap became, through grudging movement of the branches, a ladder. Richard climbed down, scolding at the tree like an angry squirrel.

NAOMI thought she'd succeeded in shutting her mind. But when her little boy slid down the final bit of trunk and came for his present, Naomi broke. Like a startled animal, she thrust the book into his hands, picked him up and ran. Her mind was a jelly, red and quaking.

She stopped momentarily after running fifty yards. "Burn the trees!" she screamed over her shoulder. "Burn the cabin! Burn it all!" She ran on, Ted's answering shouts beyond her comprehension.

Fatigue halted her. At the top of the rise between Cappy's farm and their own, pain and dizziness began flowing over her in waves. She set Richard down on the mauve soil and collapsed beside him.

When she sat up, Richard squatted just out of reach, watching curiously. She made an effort at casualness: "Let's see what

Daddy's doing back there."

"He's doing just what you said to, Mommie!" Richard answered indignantly.

Her men were standing together, Naomi realized. She laughed. After a moment, Richard joined her. Then he looked for his book, found it a few paces away, and brought it to her.

"Read to me, Mommie."

"At home," she said.

Activity at Cappy's interested her now. Wisps of smoke were licking around the trees. A tongue of flame lapped at one while she watched. Branches writhed. The trees were too slow-moving to escape . . .

But where was Ted? What had she exposed him to, with her hysterical orders? She held her breath till he moved within sight, standing quietly by a pile of salvaged tools. Behind him the cabin began to smoke.

Ted wasn't afraid, then. He understood what he faced. And Richard wasn't afraid, either, because he didn't understand.

But she? Surreptitiously Naomi pinched her hip till it felt black and blue. That was for being such a fool. She must *not* be afraid!

"Daddy seems to be staying there," she said. "Let's wait for him at home, Richard."

"Are you going to make Daddy burn our tree?"

She jumped as if stung. Then,

consciously womanlike, she sought relief in talk.

"What do you think we should do, dear?"

"Oh, I *like* the tree, Mommie. It's cool under there. And the tree plays with me."

"How, Richard?"

"If I'm pilot, he's navigator. Or ship, maybe. But he's so dumb, Mommie! I always have to tell him everything. Doesn't know what a fairy is, or Goldilocks, or anything!"

He clutched his book affectionately, rubbing his face on it. "Hurry up, Mommie. It'll be bedtime before you ever read to me!"

She touched his head briefly. "You can look at the book while I fix your supper."

BUT to explain Cappy's pictures—crudely crayoned cartoons, really—she had to fill in the story they illustrated. She told it while Richard ate: how the intrepid Spaceman gallantly used his ray gun against the villainous Martians to aid the green-haired Princess. Richard spooned up the thrills with his mush, gazing fascinated at Cappy's colorful and fantastic pictures, propped before him on the table. Had Ted been home, the scene might almost have been blissful.

It might have been . . . if their own tree hadn't reminded her of

Cappy's. Still, she'd almost managed to stuff her fear back into that mental pigeon-hole before their own tree. It was unbelievable, but she'd been glancing out the window every few minutes, so she saw it start. Their own tree began to walk.

Down the hill it came—right there!—framed in the window behind Richard's head, moving slowly but inexorably on a root system that writhed along the surface. Like some ancient sculpture of Serpents Supporting the Tree of Life. Except that it brought death . . .

"Are you sick, Mommie?"

No, not sick. Just something the matter with her throat, preventing a quick answer, leaving no way to keep Richard from turning to look out the window.

"I think our tree is coming to play with me, Mommie."

No, no! Not Richard!

"Remember how you used to say that about Cappy? When he was really coming to see your daddy?"

"But Daddy isn't home!"

"He'll get here, dear. Now eat your supper."

A lot to ask of an excited little boy. And the tree was his friend, it seemed. Cappy's tree had even followed the child's orders. Richard might intercede—

No! Expose him to such danger? How could she think of it?

"Had enough to eat, dear? Wash your hands and face at the pump, and you can stay out and play till Daddy gets home. I—I want—I may have to see your friend, the tree, by myself . . ."

"But you haven't finished my story!"

"I will when Daddy gets home. And if I'm not here, you tell Daddy to do it."

"Where are you going, Mommie?"

"I might see Cappy, dear. Now go and wash, please!"

"Sure, Mommie. Don't cry."

Accept his kiss, even if it is from a mouth rimmed with supper. And don't rub it off till he's gone out, you damned fool. You frightened fool. You shaking, sweating, terror-stricken fool.

Who's he going to kiss when you're not here?

The tree has stopped. Our little tree is having its supper. How nice. Sucking sustenance direct from soil with aid of sun and air in true plant fashion—but exhausting our mineral resources.

(How wise of Ted to make you go to those lectures! You wouldn't want to die in ignorance, would you?)

The lecture—come on, let's go back to the lecture! Let's free our soil from every tree or we'll not hold the joint in fee. No, not joint. A vulgarism, teacher would say. Methinks the times are out

of joint. Aroint thee, tree!

Now a pinch. Pinch yourself hard in the same old place so it'll hurt real bad. Then straighten your face and go stick your head out the window. Your son is talking—your son, your sun.

Can your son be eclipsed by a tree? A matter of special spatial relationships, and the space is shrinking, friend. The tree is only a few hundred feet from the house. It has finished its little supper and is now running around. Like Richard. *With* Richard! Congenial, what?

Smile, stupid. Your son speaks. Answer him.

"What, dear?"

"I see Daddy! He just came over the hill. He's running! Can I go meet him, Mommie?"

"No, dear. It's too far."

Too far. Far too far.

"Did you say something to me, Richard?"

"No. I was talking to the tree. I'm the Spaceman and he's the Martian. But he doesn't want to be the Martian!"

Richard plays. Let us play. Let us play.

You're close enough to get into the game, surely. A hundred and fifty feet, maybe. Effective range, fifty feet. Rate of motion? Projected time-interval? Depends on which system you observe it from. Richard has a system.

"He doesn't want to play,

Mommie. He wants to see you!"

"You tell that tree your Mommie never sees strangers when Daddy isn't home!"

"I'll make him wait!"

Stoutly your pot-bellied little protector prevents his protective mother from going to pot.

"If he won't play, I'll use my ray gun on him!"

Obviously, the tree won't play. Watch your son lift empty hands, arm himself with a weapon yet to be invented, and open fire on the advancing foe.

"Aa-aa-aa!"

So *that's* how a ray gun sounds!

"You're dead, tree! You're dead! Now you can't play with me any more. You're dead!"

SEEING it happen, then, watching the tree accept the little boy's fantasy as fact, Naomi wondered why she'd never thought of that herself.

So the tree was a treacherous medicine-man, was it? A true-believing witch-doctor? And who could be more susceptible to the poisoning of fear than a witch-doctor who has made fear work—and believes it's being used against him?

It was all over. She and the tree bit the dust together. But the tree was dead, and Naomi merely fainting, and Ted would soon be home . . .

—DAVE DRYFOOS

5

GALAXY'S STAR

SHELF

THE EXPLORATION OF SPACE, by Arthur C. Clarke. Harper & Brothers, New York, 1952. 199 pages plus xiii, illustrated, \$3.50

SANDS OF MARS, by Arthur C. Clarke. Gnome Press, New York, 1952. 216 pages, \$2.75

THIS is Clarke Year, it seems; and a very good year it is, too. To take the non-fiction book first, *The Exploration of Space* is a completely satisfying job. The first book about astronautics and the mechanics of traveling and living in space to be taken by the Book of the Month Club, it does not assume that you have a Ph.D.

in Extraterrestrial Vector Analysis (whatever that is, if it exists). However, it does assume that you are a normally thoughtful, educated, imaginative citizen with a fairly mature approach. In other words, not for morons.

Above all, it is soundly scientific; there is nothing crackpot about it. Its prophecies of future developments may often be proved wrong in detail, but they are definitely logical in theory.

From a brief historical survey, beginning with Lucian, of the ideas of space travel, we pass to a marvelously comprehensible analysis of the principles of the rocket motor, and thence to the

nature of the Solar System, the methods of escaping from Earth's gravity, possible spaceships, and so on, via some highly realistic domed cities on Mars to the far-distant possibilities of travel to the stars.

Illustration-wise, this book is, next to the Bonestell-Ley *Conquest of Space*, the handsomest production yet in this field. From simple diagrams which brilliantly explain such recondite subjects as gravity, to a number of gorgeous full-color plates, one of which shows the domed city of Mars in a breathtaking fashion, the book is a treasure-chest of pictorial and scientific richness.

Sands of Mars, Clarke's never-serialized second novel, is a fit successor to *Prelude to Space*, which appeared as a GALAXY novel a couple of years ago. Like *Prelude*, it is utterly real, as real as only someone who knows the current facts about space flight can make this sort of imaginative writing.

The story tells of the voyage to Mars of a famous newsman and ex-science-fiction-novelist by the name of Martin Gibson, and his conversion from an anti-Mars character to an all-out enthusiast. A subplot describing the emotional woes Gibson suffers when he recognizes one of the spaceship crew as his illegitimate son

slows the story a little, but unquestionably adds to the impact of the novel. These are people, not "spacemen," we are meeting.

The trip through space is nothing beyond what we can find in *The Exploration of Space*, decked out in fictional garments. Clarke's Mars, on the other hand, is a logical leap into the dark. None of the inventions and ideas is particularly unlikely, though, and all of them are put in a clear and unforgettable light by the author's ability at visualizing the uncreated.

One may perhaps be justified in a slight cringe at the super-scientific way the problems of Mars' cold and its low oxygen are eventually solved; but even that technique should not seem totally unlikely when one suddenly realizes that one has blithely accepted without a whimper the fantastic—but scientifically quite sound—idea of a spaceship for the Mars run which is capable of transporting 180 people!

Genuinely good reading.

YEAR'S BEST SCIENCE FICTION NOVELS: 1952, Edited by Everett F. Bleiler and T. E. Dikty. Frederick Fell, Inc., New York, 1952. 351 pages, \$3.50

THE indefatigable Chicagoans, with their second Spring 1952 collection, have started a new

annual series, and a good idea, too—a collection of the “best” novelets of the year. Stories of this length are usually problems for the anthologist, whose publisher often presses him for “more stories per book.” As a result, some of the best science fiction has long missed the momentary immortality of hard covers.

The “bestness” of the five novelets included is, of course, debatable; no one should ever expect any collection to be wholly pleasing to himself. Tastes differ too much. But this collection is at least a good average.

No one could possibly veto Eric Frank Russell’s superb “. . . And Then There Were None,” certainly one of the most evocative and provocative idea novelets that ever hit the literature of space travel. The Gands, with their wonderful “Myob!” and “F—I. W.” slogans, will never be forgotten by anyone who reads about them.

Arthur Clarke’s sensitive and perceptive “Seeker of the Sphinx” is a top selection, too. In a delightful and obviously quite unpremeditated way, its ideas play a sort of warm and contrasty counterpoint to the theme of Russell’s tale.

“Hunting Season” by Frank M. Robinson is a good one, too, though a bit slobbery. This reviewer felt that the idea was bet-

ter realized in Ray Bradbury’s shuddery “The Fox and the Forest,” but there is enough merit in the Robinson story to make its reprinting a good idea.

I didn’t think too much of Poul Anderson’s post-Einstein re-do of the Wellsian “Time Machine,” which is called “Flight to Forever” and which is super-impossible science fantasy; and nothing at all of Walter Miller’s “Izzard and the Membrane,” which demonstrates how political propaganda can ruin science fiction.

Nevertheless, the collection as a whole is eminently worthwhile. May there be more in the series!

CITY, by Clifford Simak. Gnome Press, New York, 1952. 224 pages, \$2.75

THIS strange and fascinating program for the future of Man, reported in seven *Astounding* stories and one from *Thrilling Wonder*, all but one collected in book form here for the first time, describes a tomorrow that is, for me, completely enthralling.

Commencing with a simple picture of the end of Cities as a result of decentralization caused by the family helicopter and chemical gardening, it ends up with a series of parallel worlds, one of which is in possession of ants, another controlled by a very attractive dog civilization (the

stories are legends on this world), and a third consisting of the planet Jupiter, where the human race, wholly transformed into a new type of life, has abandoned humanity, with all its faults.

One has the pleasant feeling that the series was written for the fun of it, not to uphold any theories, not to satirize anything, not for filthy lucre, and not, indeed, for any particular audience except the author himself. This makes the book all the more delightful.

The Dogs, who tell the legends, seriously doubt whether Man, with his wars and his crimes, ever existed at all, and if he did, they wonder why. Smart people, those Dogs; they suspect the tales are pure fabrications of the pre-civilized Dog mind. Anthropology, indeed! What could you call it with Dogs? Canopology, I presume.

ROBOTS HAVE NO TAILS, by Lewis Padgett. Gnome Press, New York, 1952. 224 pages, \$2.75

I AM of that select and goodly company of stuffed shirts who deny that humor and science fiction can successfully intermingle. In this I am, of course, something of a wet blanket about the drunken Gallagher and his narcissistic robot, Joe, the lead characters in this book.

On the other hand, my declamations at times falter to a halt when, in spite of myself, I hear myself busting out in giggles over some absurdity of these two strictly synthetic and primitive pieces of pulp characterization. This does not mean that I think the Gallagher series is good science fiction, for it isn't—zany imaginings of a rather anti-scientific sort.

The principles seem to be: "Scientists invent when drunk." "Research and invention is an individual, not a cooperative effort; a subconscious, rather than an intellectual effort." Very unhelpful conclusions that can be deduced from the actually harmless and often amusing adventures of this ga-ga technician and his super-robot in an overscientific, undersociologized world which continues to misuse science and technology just as we do.

Perhaps I'm being unnecessarily serious. Point is, I want to let Mr. Kuttner know I enjoy him still and realize that he is putting over some very nice satirical points in these stories, even though you have to hunt for them (*Padgett is Mr. Kuttner.*)

Vital statistics: the book has five Gallagher stories, all from *Astounding*; and two ("Gallagher Plus" and "The World Is Mine") never before anthologized.

—GROFF CONKLIN

Game for Blondes

*Being a collector can be fun
but is a collection cool and
collected if it's collected?*

By **JOHN D. MacDONALD**

MARTIN GREYNOR was very very drunk, not gayly drunk, not freshly six-quick-ones drunk, but drunk in varying degrees since December tenth at ten P.M. Two big red 10s in his mind; always with him—zeroes like a pair of headlights. Ruth beside him, sweet-scented, fur-clad. And one of his fits of stupid, vicious, reckless anger. December 10. 10 P.M. Hitting the slick black curves hard, motor droning, forcing her

to tell him he *was* going too fast. Once she said it, he could slow down and that would be a little victory.

"Too fast, Marty!" she said. They were the last words she ever spoke.

Fat headlights and the long whining skid, and the crash, and the jangle that went on forever. Ripped fur and blood and gone the sweet scent.

Now it was New Year's Eve. Ruth was gone. His job was gone,

Illustrated by **STONE**

the car gone. Money was left, though, money a-plenty. Funny about drinking. The wobbling, falling down, sick stage lasts about twelve days, he discovered. Important discovery. Boon to science. Then you're armor-plated. Liquor drops into a pit, *clunk*. Walk steady, talk steady. But in come the illusions on little soft pink feet.

Ruth ahead of you, hurrying down a dark street. "Ruth! Wait!"

Hurriedly she puts on a wadded mask, turns and grimaces at you, rasps in a mocking gin-husky voice. "Ya wan' something, sweetie?"

SHE has slipped around the next corner. Run, now, and see her in the next block. Cuke the wet December slush on the shrinking, stiffening leather of the shoes that came out of that store window.

"Marty, let's buy you a pair of those. I like those shoes."

Suit she liked. Now a bit dribbled, a shade rancid. Apartment the way they had left it that night. Never gone back. Beds not made, no doubt.

Walk through the night streets, looking for punishment. Looking for a way to release the load of guilt. Now the old places don't want you. "Sorry, Mr. Greynor. You've begun to stink." The lit-

tle bars don't care.

"HAP-PEEE NEW YEAR!"

The bar mirrors are enchanted. Ruth stands behind you. She said, "Never run away from me, darling. You'd be too easy to find. Wanted—a red-headed man with one blue eye and one brown eye. See? You couldn't get away with it."

The face that looks back has been gaunted, because you stopped eating.

He bent low over the bar until his lips almost touched the shot glass, then lifted it in a hard arc, tossing his head back. It burned its way down into the nothingness. The bartender slapped the change down. Martin Greynor fumbled with it, pushed a quarter over to the far edge. The bartender slipped it off the bar with a surly grunt and clinked it into a glass on the back bar.

Martin turned around and saw the three girls again. He wondered if it was again, or if he was seeing them for the first time. The mind performs such odd little hop, skip, jumps. He debated it solemnly, got nowhere.

They were at a table. They were all looking at him with an air of watchfulness. That could be imagined, too. Three lovelies like that are not going to make the weary ginmill rounds with you and keep watching you. You ain't that purty, Martin.

When in doubt, you write it down on top of your mind and underline it very firmly and hope that when the situation occurs again, you can find the place where you wrote it down.

He walked out steadily and stood on the sidewalk. He had the strong impression that Ruth was stretched flat on the roof, her head over the edge of the building, grinning down at him. He turned sharply and looked up. The Moon hung misty over Manhattan, debauched by neon.

NEXT block. Don't turn right. That will take you toward midtown, toward the higher prices, toward the places where they let you get three steps inside the door, then turn you firmly and walk you back out. Stay over here, buster.

They'd rolled him a few times that first week. Made a nuisance to go to the bank and get more cash each time. Now they'd stopped bothering. One of the times they'd left him sitting, spitting out a tooth. His tongue kept finding the hole.

Neon in the middle of the next block. Two couples sitting on the curb.

"Down by-ee the old mill streeeeeeem . . ."

Spotted by the prowler car.

"Break it up! Move along there!"

HE looked back. Three female silhouettes, arm in arm, step in step, tick-tock-tick of the pretty stilt heels avoiding the gray smears of slush.

He ducked into the door under the neon. This was a dark one. Dancing was going on back there somewhere to the cat-fence yowl of a clarinet and pulse-thump of piano. He edged in at the bar. The bartender came over fast, with that trouble-look on his face. Martin shoved the five out fast.

"Rye straight," he said.

The bartender paused for a count of three, then turned back to the rye department.

Martin looked over and saw them come in. He hunted on top of his mind and found the heavily underlined place. He read it off. Three blondes. Three arrogant, damp-mouthed, hot-eyed, overdressed blondes—sugary in the gloom. Same ones.

It brought him up out of himself, hand clutching the rim of his soul, for a quick look over the edge. One lone blonde in this place would have pivoted heads in tennis-match style. Two would bring hot and heart-felt exhalations. Three, he saw, seemed to stun the joint. It put a crimp in the rumble of bar-talk. It ran furry fingers down male spines.

They were watching him. He stared back until he was certain. Okay. Fact confirmed. Three

blondes following him from joint to joint. Watching him. Next step—watch real close, see if anybody walks through them.

They got a table along the wall. He watched. A hefty young man strutted over to their table, hiking up his pants, making with the bold smile. He bent over the table. They all gave him cold looks. One shook her shining head. He persisted.

The young man turned fast and hard and went high and rigid into the air. Martin saw him go up in that jet-leap of spasmed muscles, head thrown back, agony-masked face. He fell like something pushed out of a window. People gathered around him. They blocked Martin's view.

He looked at the blondes. They were watching him. In an empty lot in the back of his mind, a rabbit bounded for cover, where there was no cover, and the dogs sat watching, tongues lolling. Cold started at a spot at the base of his spine. It crept nuzzling into his armpits.

He drank and scooped up his change and left.

He ran to the corner and stood, and the trembling went away. The slush was beginning to freeze. It crunched a bit under his shoes. That was another thing. You didn't have to eat, and you didn't get cold. Ergo,

one should be beyond fear. Go around being afraid of blondes and people will begin to point at you.

He snickered. The sound was as rigid as the rind of freeze atop the sidewalk slush. We have nothing to fear but fear itself.

Problem for the class: You got a guy, see. He's dying of cancer or something, see. He's in agony and somebody comes into his room and stands by his bed and lifts a big club to hammer him one. Is the guy afraid? If so, why? If he is, it means that fear is something divorced from an objective and intellectual appraisal of the total situation. It means fear is spawned in the guts, down there where the animal lives, down where the rabbit blood is.

A PIECE of paper scuttered around the corner and embraced his leg. He bent over, picked it loose and sent it on its way.

"Hell of a big hurry, aren't you?" he said.

Tick, tack, tick, tack. By God, perfect marching. Ex-WACs? All blonde and all coming along. So what can blondes do to you? He stood his ground for a slow count of ten.

Tick, tack.

Fear rocketed into his throat and burst out his ears and he ran like hell.

A cruiser nailed him in the spotlight, tracking him like a floorshow, making him feel as though he were running, running, running in one spot. He stopped and leaned against a building, panting. The spot still held him. It nailed his eyes to the wall behind him. Big shoulders blocked it. Creak of leather and brass gleam.

"What you running for, chief?"

"It's . . . a cold night. Keeping warm."

The cuff slid him along the wall and the hand on his rancid suit yanked him back upright.

"What you running for, I said?"

"Those three blondes coming. They're after me." He could hear them coming. The spot went away. He was blind. But he could hear them.

"After you, you creep?"

"Yes, I . . ."

"Johnny, we better dump the chief here off at the ward. Come on, Mr. Irresistable."

Tick, tack, tock, tick. Silence.

"What do you girls want?"

Brass buttons took a high, hard, stiff-legged, stiff-armed leap. Martin fell into slush and rolled. Inside the cruiser, the driver stiffened, his head going *bong* on the metal roof.

MARTIN ran, bleating. An empty field and no cover. The wise eyes of the hunting

dogs. Wait until he comes around again, fellows.

He turned, skidding in the freezing slush, and ran into an alley, tangling his legs in a bunch of trash, sprawling, clawing his way up again, running into a wall, stinging his hands. He turned. Three female silhouettes in the alley mouth. High-waisted, long-legged, stilt-heeled, cream-headed.

He made little sounds in his throat and pawed his way along the wall. An alley like a shoe box with one end missing—the end they were at.

He sat down and covered his eyes. Count to ten and they'll go away. One-a-larry, two-a-larry, three-a-larry, four.

New spotlight. This was a different one. It came at him from a lot of little directions, like one of those trick showers with a dozen spray heads.

"Got um," a blonde voice said.

"Up to spec, no?"

They stood outside the radiance.

"Color and out," one said.

"Take um."

Something grew in front of him, a red happy-new-year balloon. So it was a gag, maybe. It lobbed through the air toward him, turning in iridescence. He caught it. It was red jelly with a cellophane skin. It kept trying to slide down between his fingers.

"Yah-hah!" one of the blondes said.

It broke in his hands, showered green needles up to his nose to sizzle in his brain fat.

The sky broke in half and he went over backward and down, heels up and over, sizzling.

MARTIN slid naked across a mirrored floor. He was bug-sized and it was the mirror on his mother's dressing table a million years ago. He stopped sliding and tried to sit up. The bracing hand skidded and he hit his head.

He tried more cautiously. He could sit up by carefully shifting his weight, but he couldn't stand. The surface was frictionless. Compared to it, glare ice was like sandpaper.

He lay down and looked up. Overhead was nothing. He thought about that for quite a while. Nothing. No thing. Nothing with a flaw in it. A little flaw. He peered at it. It was in the shape of a tiny naked man. He moved a leg. The tiny naked man moved a leg. Everything clicked into focus. A mirror under him and, at an incredible height above him, another.

Now, he thought, I'm a germ on a big microscope. His body felt odd. He managed to sit up again. He looked at himself. Clean. Impossibly, incredibly

clean. His fingernails were snowy. His toenails were like white paper. His skin was clean and pink with a glow of health, but the old heart went thudding slowly and sickly along.

Silence. All he could hear was the roar of his blood in his ears. Like listening to a sea shell. There had been a big pink conch in his grandfather's house.

"Hear the sea, Marty?"

The mirror tilted and he slid into a hole that wasn't there before. He came out into a square blue room.

His three blondes were there, watching him. We don't get pink elephants. We don't get snakes and bugs. We get blondes.

He stood up, too aware of his nudity. They watched him calmly, ignoring it.

"Now, look," he said, "can't we be friends?"

They had changed. Their mouths were different — vivid green paint in a perfect rectangle. They looked at him with that calm pride of ownership. Nice doggy.

"Now, look," he began again, and stopped when he noticed their strange dresses. He looked closer. Ladies, please, you can't dress with a paint spray. But they had.

"This," he said, "is a nightmare by Petty, out of Varga."

The paint job was nicely

shaded at the edges, but just a paint job. One of them stepped to him, grabbed him by the hair and tilted his head back. She looked into his eyes and made a little satisfied clucking sound. She turned and pointed to the corner.

"Yup now," she said.

"How does one go about yupping?" he asked vacantly.

She looked at one of the other blondes, who said slowly and precisely, "Hurry — up — now. late."

There was a pile of clothes in the corner. He went over, glad for a chance of regaining pants, even in a dream world. The garments were recognizable, the material wasn't. A sartorial cartoon of the American male, mid-twentieth century. Every incongruity of the clothing exaggerated. Sleeve buttons like saucers. Shoulders padded out a foot on each side. No buttons, no snaps, no zippers. You just got inside them and they were on, somehow. The buttons on the suit were fakes. The suit was bright blue with a harsh red stripe.

Dressed, he felt like a straight man in a burlesque.

From a distance he heard a great shout. It sounded like "Yah-hah!" from ten thousand throats. He suddenly had the strong hunch that he was going on display.

The nearest blonde confirmed that hunch. She stepped over and clamped a metal circlet around his forehead.

Three golden chains dangled from his headpiece. Each blonde took one chain. The nearest one to one of the blue walls touched it. A slit appeared and folded back. They went through. The blondes began to strut. A mid-way strut. A stripper stomp.

"Here comes Martin," he said feebly.

HE was in the middle of a garden. The clipped turf underfoot was springy. Tailored terraces rose on three sides. A fat sun and a billion flowers and several thousand exceptionally handsome people wearing paint jobs and nothing else.

The center arena had some people in it, people fastened to chains as he was, each one held by three blondes. The spectators were all on the terraces. There was a picnic atmosphere.

They went into the middle of the arena. The other captives were being led in an endless circle.

"Yah-hah!" the multitude yelled. "Yah-hah-hah!"

They posed in the center and then began the circling. Martin stared at his fellow captives. Some were men and some were women. One wore animal skins;

another wore armor. One was dressed like the pictures of George Washington. Some wore clothing he'd never seen before.

He was led around and around. More performers took their center ring bow. Something was bothering him, some silly small thing. He couldn't fit his mind over it. Too much was going on in this delirium.

Then he got it—all the captives had red hair.

He turned and looked at the scared woman who walked behind him. She had red hair, one blue eye and one brown eye. She wore gingham and a sunbonnet.

He sneaked looks at the others. One blue eye. One brown eye. Red hair.

Everyone stopped walking. There was a great and final, "Yah-hah." Three sets of blondes stood in the center ring without captives. Their heads were bowed.

His blondes trotted him over, took off the circlet and flipped him back into the blue room. The slit was closed. He pinched his leg.

"Hell," he said softly.

The slit opened after what he imagined to be an hour had passed. One of his blondes came back. She had a man with her, a chesty citizen dressed in cerise paint.

"Talkit ya tempo," she said, pointing at the chesty man.





He beamed at Martin. "Blessings," he said.

"Blessings yourself."

"Indebted. Thanking very much."

"Your welcoming very much, bud."

"Knowing all?" the man asked with a wide arm sweep.

"Knowing nothing. Not a damned thing! What's this all about?"

The chesty man beamed some more. He scratched his paint job lightly. He frowned. "Hard to say. You past. I future. Is party. My party. My house. My garden. Having game. Sending ladies your tempo, lot of tempos. All same thing. Bringing only with red on hair, eye brown, eye blue. Hard to find. For game."

Martin goggled at him. "You mean a scavenger hunt through time?"

"Not knowing. Is only game. Some ladies failing. Too bad."

"What happens to them?"

The man grinned. "No present for them. Now, present for you. Returning. Any place in tempo yours. To place taken. To other place. Sooner, later. Your choice."

"Return me to any . . . moment in my life?"

"All tempo function. You say—how?—resonance."

"Send me to December 10th, eight P.M."

MARTIN GREYNOR was sitting on the edge of his bed. He had just yanked his shoelaces tight in the left shoe. The tipped laces were still in his hands. He let go of them. He heard a shower pouring. The sound stopped suddenly.

His throat was full of rusty wire. "Ruth?"

She opened the bathroom door. She was wrapped in a big yellow towel.

"What is it now, Marty? My goodness, you've been needling me all evening. You're in a perfectly foul humor. I'm hurrying just as fast as I can."

"Ruth, I . . ." He tried to smile. His lips felt split.

She came to him, quick with concern. "Marty! Are you all right, darling? You look so odd."

"Me? I've never been more all right." He pulled her down beside him.

"Hey, you! I'm soaking wet."

"Baby, do we have to drive way out there tonight? Do we?"

She stared at him. "Good Lord, it was *your* idea. I detest both of them. You know that."

"Let's stay home. Just the two of us. Bust open that brandy, maybe. Use up some of those birch logs."

"But we accepted and . . ."

He held her tightly. He would never let her go.

She whispered, "I like you bet-

ter this way, instead of all snarly and grouchy." She giggled. "I think we could phone and tell them you have a fever, darling. It wouldn't *really* be a lie."

SHE made the call, winking at him as she gave worried noises about his symptoms. She hung up and said, "She was huffy and painfully sweet. Tonight the Greynors are at home. Darling, it would have been a crummy evening."

"A . . . disastrous evening."

"They play kid games all the time. That's what irks me. Remember in the summer? They had a scavenger hunt. If that isn't the height of silliness!"

He looked at the fire glow reflected in her hair.

"It isn't a bad game, baby."

"What do you mean?"

He shrugged. "Guess it depends on who's playing it and what the prize is."

—JOHN D. MacDONALD

Forecast

Leading next month's issue is a compellingly convincing novella, **THE MARTIAN WAY** by Isaac Asimov, one of the most ingenious, human and down-to-probability stories this superb and popular author has ever produced. Science fiction often has a way of ignoring the potential realities of such forthcoming situations as space travel—though **GALAXY** strives hard to discover and deal with them—and Asimov presents a type of fuel and the problems that getting it involve, entirely new to this medium, as far as we on **GALAXY** know. The solution is in line with the very latest discovery about our own solar system.

Supporting Asimov's suspenseful offering are:

SUGAR PLUM by R. Bretnor, a novelet with the most outstanding space pirate you've ever met. You don't think **GALAXY** would use just an ordinary pirate, do you? This one's a shocker!

COMMAND PERFORMANCE, another novelet, by Walter M. Miller, as sensitive and perceptive a study of a woman with a frightening power as science fiction has ever presented.

Plus short stories, of course, all that we can squeeze or urge into the issue; Willy Ley's **FOR YOUR IMAGINATION** (remember that he'll answer all questions either in the magazine or by mail!); and our regular features.

a little



oil...

By ERIC FRANK RUSSELL

In this carefully chosen, precision-trained space crew, where did a fumbling bubble-head like Bertelli fit in? Why was he selected?



Illustrated by FREAS

*Isn't it strange that princes and
kings
And clowns that caper in sawdust
rings
And ordinary folk like you and
me
Are builders of eternity.*

*To each is given a bag of tools,
An hour-glass and a book of*

*rules,
And each must build ere his time
has flown
A stumbling-block or a stepping-
stone.*

Anon.

THE SHIP hummed and
thrummed and drummed.
It was a low-cycle note,

sonorous and penetrating like that produced by the big-pipe octave of a mighty organ. It moaned through hull-plates, groaned out of girders, throbbed along nerves and bones, beat upon tired ears and could not be ignored. Not after a week, a month or a year. Certainly not after most of four years.

There was no effective cure for the noise. It was the inevitable, unavoidable result of bottling an atomic propulsor within a cylinder of highly conductive metal. The first ship had screeched one hundred cycles higher, minute after minute, hour after hour, and had never returned. Somewhere amid the waste spaces of the infinite, it might still be howling, unheard, unheeded, after thirty years.

Ship number two had started out with a slag-wool padded engine room and silicone-lined venturis. The low note. The drone of a burdened bee amplified twenty thousand times. And the bee had not come back to the hive. Eighteen years into the star field and blindly heading onward for another hundred, thousand or ten thousand years.

The vessel now thundering along was number three, not going outward, but on its way back, heading for home. Nosing toward a not-yet-visible red dot lost in the mist of stars, a strayed soul

fumbling for salvation, it was determined not to be damned as others had been damned. Ship number three—that meant something.

Sea sailors cherish sea superstitions. Space sailors coddle space superstitions. In the captain's cabin where Kinrade sat writing the log, a superstition was pinned to the wall and functioned as a morale booster.

THIRD TIME DOES IT!

They had believed it at the start when the crew had numbered nine. They would believe it at the finish, though reduced to six. But in between times there had been and might again be bad moments of shaken faith when men wanted out at any cost, even the cost of death, and to hell with the ultimate purpose of the flight. Moments when men fought other men in effort to break loose from audiophobia, claustrophobia, half a dozen other phobias.

KINRADE wrote with the pen in his right hand, a blued-steel automatic within easy reach of his left. His eyes concentrated on the log, his ears on the ship and its everlasting drumming. The noise might hesitate, falter or cease, and the blessing of its cessation would be equally a curse. Or other sounds might rise

above this persistent background, an oath, a shout, a shot. It had happened once before, when Weygarth cracked. It could happen again.

Kinrade was somewhat edgy himself, for he jerked in his seat and slid his left hand sidewise when Bertelli came in unexpectedly. Recovering, he swung his chair round on its socket, gazed into the other's sad gray eyes.

"Well, have they marked it yet?"

The question startled Bertelli. His long, lugubrious, hollow-cheeked face grew longer. His great gash of a mouth drooped at the corners. The sad eyes took on an expression of hopeless bafflement. He was clumsily embarrassed.

Recognizing these familiar symptoms, Kinrade became more explicit. "Is Sol visible on the screen?"

"Sol?" Bertelli's hands tangled together, the fingers like carrots.

"Our own sun, you imbecile!"

"Oh, *that!*" The eyes widened in delighted comprehension. "I haven't asked."

"I thought maybe you'd come to tell me they've got it spotted at last."

"No, Captain. It's just that I wondered whether you need any help." His expression switched from its accustomed glumness to the eager smile of a fool more

than willing to serve. The mouth lifted, widened so much that it made the ears stick out and reminded the onlooker of a slice of melon.

"Thanks," said Kinrade, more kindly. "Not right now."

Bertelli's embarrassment came back in painful strength. His face was humbly apologetic for having asked. After shifting around on his big, ugly feet, he went out. As always, he skidded violently on the steel-floored catwalk, regained balance with a clatter of heavy boots. Nobody else slipped at that spot, but he invariably did.

Kinrade suddenly realized that he was smiling and changed it to a troubled frown. For the hundredth time he consulted the ship's register, found it no more informative than on the ninety-nine other occasions. There was the little roster with three names of the nine crossed out. And the same entry halfway down: *Enrico Bertelli, thirty-two, psychologist.*

It was the bunk. If Bertelli were a psychologist or anything remotely connected with scientific expertness, then he, Robert Kinrade, was a bright blue giraffe. For almost four years they'd been locked together in this groaning cylinder, six men carefully chosen from the great mass of humanity, six men sup-

posed to be the salt of the Earth, the cream of their kind. But the six were five men and a fool.

There was a puzzle here. It intrigued him in spare moments when he had time to think with a mind untrammelled by serious matters. It dangled before him tantalizingly, making him repeatedly picture its subject all the way down from sad eyes to flat feet. During rare moments of meditation, he found himself vainly trying to analyze Bertelli and deduce the real reason for his being, concentrating upon him to the temporary exclusion of the others.

As opportunity occurred, Kinrade watched him, too, marveling that any so-called expert could be so thoroughly and unfailingly nit-witted. He studied Bertelli with such intentness that he failed to notice whether the others might be doing the same for similar reasons born of similar thoughts.

Yet this concentration was his answer—and he did not know it.

MARSDEN was duty navigator and Vail stood guard in the engine room when Kinrade went to lunch. The other three already were at the table in the tiny galley. He nodded briefly and took his place.

Big blond Nilsen, atomic engineer by choice, plus botanist by

official coercion, eyed Kinrade skeptically and said, "No sun."

"I know."

"There ought to be."

Kinrade shrugged.

"But there isn't," Nilsen persisted.

"I know."

"Do you care?"

"Don't be a sap." Breaking open a packaged meal, Kinrade tossed it into his compartmented plastic plate.

Thrum-thrum went the ship from floor, walls and ceiling.

"So you think I'm a sap, do you?" Nilsen leaned forward, stared with aggressive expectancy.

"Let's eat," suggested Aram, the thin, dark and nervous cosmogeologist at his side. "One bellyache's enough without hunting another."

"That's not the point," declared Nilsen. "I want to know —"

He shut up as Bertelli mumbled, "Pardon me," and reached across him for salt in a container fastened to the other end of the table.

Unscrewing it, Bertelli brought it to his end, sat down, found himself on the extreme edge of his seat. His eyes popped very slightly in mild surprise. He stood, slid the seat forward on its runners, sat again, knocked the salt off the table. Radiating

shame and self-consciousness, he picked it up, used it in the manner of one emptying a large bucket, practically lay full length on the table to screw it in its original position. That task performed, he squirmed backward with his behind in the air, gained the seat again.

It was the edge and so near that he began to slide off it. The eyes bulged a fraction more widely than before and once again he went through the seat-sliding performance. Finally he sat down, smoothed out an invisible napkin, favored everyone with a look of abject apology.

Taking in a deep breath, Nilsen said to him, "Sure you wouldn't care for a little more salt?"

Bertelli's eyes dulled under the impact of the problem, sought his plate, examined it with idiotic care. "No, I don't think so, thank you."

Surveying his own plate a moment, Nilsen looked up, met Kinrade's eyes, asked, "What's this guy got that others haven't got?"

Grinning at him, Kinrade replied, "That problem is a corker. I've been trying to figure it out and I can't."

A half-smile came into Nilsen's features as he confessed, "Neither can I."

Bertelli said nothing. He went on with his meal, eating in char-

acteristic manner with elbows held high and his hand uncertainly seeking a mouth it could not miss.

PUTTING a pencil-tip to the screen, Marsden said, "That one looks pink to me. But it may be my imagination."

Kinrade bent close and had a look. "Too small to be sure. A mere pinpoint."

"Then I've been kidding myself."

"Not necessarily. Your eyes may be more color-sensitive than mine."

"Ask Goofy here," suggested Marsden.

Bertelli examined the brilliant dot from ten different distances and as many angles. Finally he squinted at it.

"That can't be it," he announced, triumphant with discovery, "because our sun is orange-red."

"The fluorescent coating of the screen would make it look pink," informed Marsden with a touch of impatience. "Does that dot look pink?"

"I don't know," Bertelli admitted miserably.

"You're a great help."

"It's too far away for more than mere guesswork," said Kinrade. "Resolution isn't good enough to cope with such a distance. We'll have to wait until

we get a good deal closer."

"I'm fed up waiting," said Marsden, scowling at the screen.

"But we're going home," Bertelli reminded him.

"I know. That's what's killing me."

"Don't you want to go home?" Bertelli puzzledly asked.

"I want to too much." Irritatedly, Marsden rammed the pencil back into his pocket. "I thought I'd stand the inward trip better than the outward one just because it would be homeward. I was wrong. I want green grass, blue skies and plenty of room to move around. I can't wait."

"I can," said Bertelli, virtuously. "Because I've got to. If I were unable to wait, I'd go nuts."

"Would you?" Marsden looked him over, the grouch slowly fading from his face. The change went as far as a chuckle. "How much of a trip would that be?"

Leaving the navigation room, he headed toward the galley, still chuckling as he went. Rounding the farther corner, he let out a low guffaw.

"What's funny?" asked Bertelli, vacantly mystified.

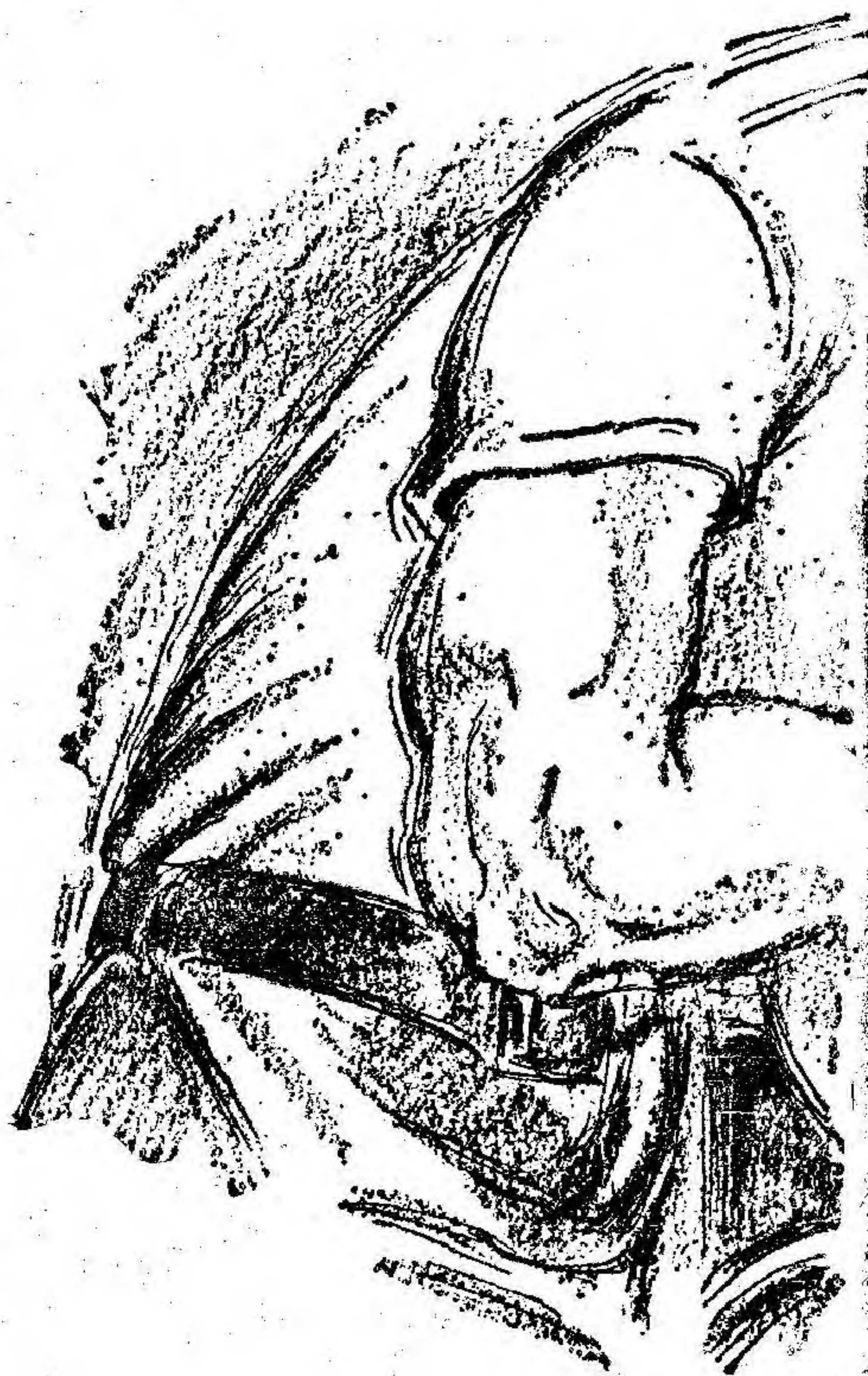
Straightening up from the screen, Kinrade eyed him with care. "How is it that whenever somebody starts blowing his—" Changing his mind, he let the sentence die out.

"Yes, Captain?"

"Oh, forget it."

The ship plunged onward, moaning at every plate.

Vail appeared presently, coming off duty and on his way to eat. He was a short man of great width, with long arms and powerful hands.



"Any luck?"

"We're not sure." Kinrade indicated the dot burning amid a confusing host of others. "Marsden thinks that's it. He may be wrong."

"Don't you *know*?" asked Vail, looking at him and ignoring the



screen Kinrade was pointing to.

"We will in due time. It's a bit early yet."

"Changing your tune, aren't you?"

"What do you mean?" Kinrade's tone was sharp.

"Three days ago you told us that Sol should become visible in the screen almost any time. That gave us a lift. We needed it. I'm no sniveling babe myself, but I must admit I wanted that boost." He surveyed the other with a touch of resentment. "The higher hopes go, the lower they fall when they drop."

"I'm not dropping mine," Kinrade said. "Three days plus or minus is a tiny margin of error in a return trip taking two years."

"That would be true if we're on correct course. Maybe we aren't."

"Are you suggesting that I'm not competent to work out the proper coordinates?"

"I'm suggesting that even the best of us can blunder," Vail gave back stubbornly. "In proof of which, two ships have gone to pot."

"Not because of navigational errors," put in Bertelli, looking unconvincingly profound.

Pursing his lips, Vail stared at him and inquired, "What the hell do you know about space navigation?"

"Nothing," Bertelli confessed

with the air of one surrendering a back tooth. He nodded toward Kinrade. "But he knows enough."

"I wonder!"

THE route for return was worked out in full detail by Captain Sanderson before he died," said Kinrade, his color a little heightened. "I've checked and rechecked at least a dozen times. So has Marsden. If you're not satisfied, you can have the calculations and go through them yourself."

"I'm not a trained navigator."

"Then shut your trap and leave other—"

Bertelli broke in with a note of protest. "But I didn't have it open!"

Shifting attention to him, Kinrade asked, "You didn't have what open?"

"My mouth," said Bertelli. He registered personal injury. "Don't know why you have to pick on me. Everyone picks on me."

"You're wrong," Vail told him. "He—"

"There you are. I'm wrong. I'm always wrong. I'm never right." Emitting a deep sigh, Bertelli wandered out, dragging big feet. His face was a picture of misery.

Vail watched him in faint amazement, then said, "That looks to me like a persecution complex. And he's supposed to

be a psychologist. What a laugh!"

"Yes," agreed Kinrade, without humor. "What a laugh!"

Going to the screen, Vail examined it. "Which one does Marsden think is Sol?"

"That one." Kinrade pointed it out for him.

Staring at it hungrily for quite a time, Vail finished, "Oh, well, let's hope he's right." Then he departed.

Left alone, Kinrade sat in the navigator's chair and looked at the screen without seeing it. His mind was on a problem that might be real or might be imaginary.

When does science become an art? Or should it be: when does art become a science?

ARAM cracked next day. He got a dose of "Charlie," the same psychotic behavior pattern that had put an end to Weygarth. There was a technical name for it, but few knew it and fewer could pronounce it. The slang term came from an ancient, almost forgotten war in which the rear-gunner of a big aircraft—Tail End Charlie—would think too long of the heavy bomb-load and the thousands of gallons of high octane spirit right behind his perspex parrot-cage, and all of a sudden he'd batter upon the walls of his prison, screaming,

The way Aram broke was characteristic of this space affliction. He sat next to Nilsen, quietly downing his meal, but picking at the compartmented plastic tray as though completely indifferent to food or drink. Then, without a word or the slightest change of expression, he pushed away the tray, got up and ran like hell. Nilsen tried to trip him and failed. Aram shot through the door like a bolting rabbit, raced headlong down the passage toward the airlock.

Slamming his own chair back to the limit of its holding rails, Nilsen went after him with Kinrade one jump behind. Bertelli stayed in his seat, a forkful of food halfway to his mouth, his gaze fixed blankly on the facing wall while his big ears remained perked for outer sounds.

They caught Aram frantically struggling with the airlock wheel and trying to force it the wrong way around. Even if he had rotated it the right way, he wouldn't have had time to open it. His thin features were pale and he was snuffling with exertion.

Reaching him, Nilsen jerked him around by one shoulder, smacked him in the jaw. There was plenty of force behind that blow. Aram, a small, lightly built man, caromed along the passage and ended up as an un-

conscious bundle by the forward door. Rubbing his knuckles, Nilsen grunted to himself, checked the airlock wheel to make sure it was holding good and tight.

Then he grasped the victim's feet while Kinrade lifted the shoulders and between them they bore the sagging Aram to his tiny cabin, laid him in his bunk. Nilsen remained on watch while Kinrade went for the hypodermic needle and a shot of dope. They put Aram out of the running for the next twelve hours. This was the only known countermeasure: an enforced sleep during which an overactive brain could rest and strained nerves recuperate.

Returning to the galley, Nilsen resumed his interrupted meal, said to Kinrade, "Good thing he didn't think to swipe a gun."

Kinrade nodded without answering. He knew what the other meant. Weygarth had tried to hold them off with a gun while he prepared his dash to false freedom on a blast of air. They could not rush him without risking serious loss. They'd had to shoot him down quickly, ruthlessly, before it was too late. Weygarth had been their first bitter casualty only twenty months out.

And now they dared not suffer another loss. Five men could run the ship, control it, steer it, land it. Five represented the absolute

minimum. Four would be damned forever to a great metal coffin thundering blindly amid the host of stars.

It brought up yet another of the problems that Kinrade had not been able to resolve, at least to his own satisfaction. Should an airlock be fastened with a real lock to which only the captain held the key? Or might that cost them dear in a sudden and grave emergency? Which was the greater risk, lunatic escape for one or balked escape for all?

Oh, well, they were homeward bound, and when they got back he'd hand over the log and the detailed reports and leave the big brains to work it out for themselves. That was their job; his to make landfall safely.

KINRADE glanced at Nilsen, noted the introspective frown on his face and knew that he was thinking of Weygarth. Scientists and top-grade technicians are people with highly trained minds, but that does not make them less or more than other men. Their status does not keep them in splendid isolation from humanity. Outside of their especial interests, they are plain, ordinary folk subject to the strains and tensions of every man. Their minds are not and cannot be solely and everlastingly occupied with one subject. Sometimes they think of

other men and sometimes of themselves. Nilsen's was a trained mind, intelligent and sensitive, therefore so much the more liable to crack. Kinrade knew instinctively that if and when Nilsen made a break for the lock, he would not forget the gun.

It took less intelligent, less imaginative types—the cow-mind—to endure long incarceration in a huge steel boiler on which a dozen devils hammered hour after hour, day after day, without cease or let-up. There was another problem for Earth's bigbrains to mull a while: dull-witted people were tops for endurance, but useless functionally. Bright minds were essential to run the ship, yet somewhat more likely to go *phut*, even though only temporarily.

What did this add up to? Answer: the ideal space crew should be composed of hopeless dopes with high I. Q. A contradiction in terms.

Now that he came to consider it, the thought struck him that here might be the solution to the mystery of Bertelli. Those who had designed and built the ship and hand-picked the crew were people of formidable craftiness. It was incredible that they'd dig up a gormless character like Bertelli in a spirit of not giving a damn. The selection had been deliberate and carefully calcu-

lated, of that Kinrade was certain. Perhaps the loss of two ships had convinced them that they'd have to be more modest in their choice of crews. Maybe Bertelli had been planted to test how a dope made out.

If so, they had something—but it wasn't enough. Without a doubt, Bertelli would be the last to crack, the last to race for the airlock. Beyond that, nothing could be said in his favor purely from the technical viewpoint. He knew little worth knowing and that he had learned from the others. Any responsibility with which he was entrusted invariably got bollixed in masterly style. Indeed, with his big, clumsy mitts on any of the controls, he would be a major menace.

He was liked, all right. In fact, he was popular in a way. Bertelli had other accomplishments about as genuinely useful on a spaceship as a skunk's smell-gun at a convention. He could play several musical instruments, sing in a cracked voice, mime in really funny manner, tap-dance with a peculiar sort of loose-jointed clumsiness. After they'd got over their initial irritation with him, they had found him amusing and pathetic—a bumbler they were sorry to feel superior to, because they couldn't think of anyone who wouldn't be superior to him.

The schemers back home

would learn that a spaceship is better without non-technical thickheads, Kinrade decided rather uncertainly. They had made their test and it hadn't come off. It hadn't come off. It hadn't come off. The more he repeated it to himself, the less sure he felt about it.

Vail came in, paused at the sight of them. "I thought you'd finished ten minutes ago."

"It's all right." Nilsen stood up, brushed away crumbs, gestured toward his chair. "I'll go watch the engines."

Getting his tray and meal, Vail seated himself, eyed the others. "What's up?"

"Aram's in bed with Charlie," Kinrade told him.

Not the flicker of emotion crossed Vail's face. He made a vicious stab at his food, said, "The Sun would bring him out of that condition. That's what we all want, a sight of the Sun."

"There are millions of suns," informed Bertelli, eagerly offering the lot.

Leaning his elbows on the table, Vail said in a harsh voice and with great significance, "That is precisely the point!"

Bertelli's eyes dulled into complete confusion. He fidgeted with his tray, knocked his fork around without noticing it. Still looking at Vail, he felt for the fork, picked it up by the prongs, absently

poked at the tray with the handle. Then he lifted the handle toward his mouth.

"I'd try the other end," advised Vail, watching with interest. "It's sharper."

The eyes lowered, studied the fork while gradually they took on an expression of vacant surprise. He made a childish motion indicative of helplessness. Finally he bestowed on both his usual apologetic grin and at the same time gave a casual twitch of finger and thumb that landed the handle smack in his palm.

Kinrade noticed that flip. Vail didn't, but he did—and for once he got a strange, uncanny feeling that Bertelli had made a very small mistake, a tiny error that might have passed unseen.

WHEN Kinrade was in his cabin, the intercom called on the desk and Marsden's voice said, "Aram's just come out of it. He's got a sore jaw, but he seems cooled down. I don't think he needs another shot—yet."

"We'll let him run loose, but keep an eye on him for a while," Kinrade decided. "Tell Bertelli to stick close. He has nothing better to do."

"All right." Marsden paused, added in lower tones, "Vail is pretty surly lately. Have you noticed?"

"He's okay. Just gets jumpy

now and again. Don't we all?"

"I suppose so." Marsden sounded as if he'd like to say more, but he didn't. He cut off and the intercom went silent.

Finishing the day's entry on the log, Kinrade examined himself at the mirror, decided he'd put off a shave a little longer. This was his idea of petty luxury; he disliked the chore, but lacked the courage to grow a beard. Other men, other notions.

He lay back in his chair and enjoyed a quiet think, first about the planet called home, then the men who had sent this ship into space, then the men who were flying it with him. They'd been trained for the job, these six who, for the first time, had reached another star, and their training had incorporated a certain amount of useful flexibility. The three spacemen among them had been given superswift education in some branch of science. The scientists had undergone courses in space navigation or atomic engineering. Two aptitudes per man. Then he thought again and eliminated Bertelli.

Pre-flight education had gone further than that. A baldheaded old coot who bossed a lunatic asylum had lectured them on space etiquette with every air of knowing what he was talking about. Each man, he had explained, would know only three things

about his fellows, to wit: name, age and qualification. No man must ask for more nor seek to pry into another's private life. Unknown lives provide no basis for irrational prejudices, antagonisms or insults, he had said. Empty personalities don't clash so readily. So it was established that none might urge another to reveal what made him tick.

Thus Kinrade could not probe the reasons why Vail was irritable above the average or what made Marsden more impatient than others. He could not determine from past data why Nilsen potentially was the most dangerous or Aram the least stable. Neither could he insist that Bertelli explain his presence in understandable terms. Pending successful completion of the flight, each man's history remained hidden behind a curtain through which, from time to time only insignificant items had been glimpsed.

After most of four years existing cheek by jowl with these people, he had come to know them as never before—but not as he would know them some day in the green fields of Earth when the flight was a bygone event, the tabu was broken and they had memories for free discussion.

He liked to muse on these matters because he had developed a theory that he intended

to dump right in the laps of the experts. It concerned lifers in penitentiaries. Not all criminals are stupid, he believed. Many might be intelligent, sensitive men somehow pushed or kicked off the path called straight and narrow. Walled up, some of them would get a dose of Charlie, try to bust out, beat up a warder, anything *anything* to escape—and be rewarded for their efforts with solitary confinement. It was like treating a poisoned man with an even more powerful dose of what had made him ill. It was wrong, wrong. He was convinced of that. There was a reformist streak in Kinrade.

Upon his desk he had a neatly written scheme for the treatment of lifers likely to go psycho. It involved constant individual observation and the timely use of occupational therapy. Whether or not it was practical, he didn't know, but at least it was constructive. The plan was his pet. He wanted leading penologists to play with it, give it a serious tryout. If it worked—and he felt that it should—the world would have derived one benefit from this flight in a way not originally contemplated. Even that alone made it profitable.

AT that point, his thoughts were brought to an abrupt end by the arrival of Nilsen,

Vail and Marsden. Behind them, waiting in the doorway, but not entering, was Aram with Bertelli in attendance. Kinrade braced himself in his seat and spoke gruffly.

"This is great. Nobody at the controls."

"I switched on the autopilot," Marsden said. "It will hold her on course four or five hours. You said so yourself."

"True." His eyes examined them. "Well, why the scowling deputation?"

"This is the end of the fourth day," Nilsen pointed out. "Soon we'll be into the fifth. And we're still looking for Sol."

"So?"

"I'm not satisfied that you know where we're going."

"I am."

"Is that a fact or more face-saving?"

Kinrade stood up, said, "For the sake of argument, suppose I admitted that we're running blind—what could you do about it?"

"That's an easy one." Nilsen's air was that of one whose suspicions have almost been confirmed. "We picked you for captain after Sanderson died. We'd withdraw the vote and choose somebody else."

"And then?"

"Make for the nearest star, hunt around for a planet we can live on."

"Sol is the nearest star."

"It is if we're heading right," Nilsen retorted.

Sliding open a drawer in his desk, Kinrade took out a large roll of paper, spread it across the top. Its multitude of tiny squares bore a large number of dots and crosses amid which a thick, black line ran in a steady curve.

"This is the return course." His fingers indicated several crosses and dots. "We can tell by direct observation of these bodies whether or not we are on course. There's only one thing we can't check with absolute accuracy."

"What's that?" inquired Vail, frowning at the chart.

"Our velocity. It can be estimated only with a five per cent margin of error, plus or minus. I know we're on course, but not precisely how far along it. Hence the four-day lag. I warn you that it can extend to as much as ten."

Nilsen said, heavily, "They took photos of the star formation on the way out. We've just been putting the transparencies over the screen. They don't match."

"Of course they don't." Kinrade displayed impatience. "We're not at the same point. The star field will have circumferential displacement."

"We aren't without brains despite not being trained naviga-

tors," Nilsen gave back. "There is displacement. It progresses radially from a focal point that is not the pink spot you claim is Sol. The point is about halfway between that and the left edge of the screen." He gave a loud sniff, invited, "Can you talk yourself out of that one?"

Kinrade sighed, put a finger on the chart. "This line is a curve, as you can see. The outward course was a similar curve bending the reverse way. The tail camera focused along the line of the ship's axis. A few thousand miles out, it was pointing sunward, but the farther the ship got, the more its axis pointed to one side. By the time we crossed the orbit of Pluto, it was aiming to hell and away."

Peering at the chart, Nilsen thought a while, asked shrewdly, "If you are sincere, what's the absolute margin of error?"

"I told you—ten days."

"Nearly half of those have gone. We'll give you the other half."

"Thanks!" said Kinrade, faintly sarcastic.

"After which we'll either see Sol and identify it beyond doubt or we'll have a new captain and be heading for the nearest light."

"We'll draw lots for captain," suggested Bertelli from the back. "I'd like the chance to boss a ship."

"Heaven help us!" exclaimed Marsden.

"We'll pick the man best qualified," said Nilsen.

"That's why you chose Kinradē in the first place," Bertelli reminded him.

"Maybe. But we'll find someone else."

"Then I insist on being considered. One dope is as good as another for making a mess of things."

"When it comes to that, we're not in the same class," replied Nilsen, feeling that his efforts were being subtly sabotaged. "You can out-boob me with your big hands pinned to your big ears." He looked over the others. "Isn't that so?"

They grinned assent.

It wasn't Nilsen's triumph. It was somebody else's.

Merely because they did grin.

BERTELLI organized another party that night. For once his birthday was not the pretext. Somehow he'd managed to celebrate seven birthdays in four years without anyone seeing fit to count them all. But an excuse can be overdone, so he announced his candidacy for the post of captain, explaining that he wished to curry favor with voters. It was as good as any.

They cleared the galley as they'd done a score of times be-

fore. They broke a bottle of gin, shared it between them, sipped with introspective glumness. Aram did his party-piece by bird-calling between two fingers, received the usual polite applause. Marsden recited something about the brown eye of the little yellow dog. By that time Nilsen had warmed up sufficiently to sing two songs in a deep, rich bass. He gained louder applause for having varied his repertoire.

Weygarth, of course, wasn't there to do his sleight-of-hand tricks. Sanderson and Dawkins were also missing from the bill. Temporarily, their absence was forgotten as the tiny audience awaited the star turn.

Bertelli, of course. This was the sort of thing at which he excelled and the chief reason why a major nuisance had become tolerated, liked, perhaps loved.

When they'd held the alien landfall spree, he'd played an oboe for most of an hour, doing more things with the instrument than they had believed possible. He had ended with a sonic impression of an automobile collision, the agitated toot of horns, the crash, the heated argument between oboe-voiced drivers that finished with decidedly rude noises. Nilsen had almost rolled out of his seat.

On the way home, there had been a couple more whoopees at

ranged for no reason other than the hell of it. Bertelli had mimed for those, his dental plates removed, his features rubbery, his arms like snakes. First the eager sailor leaping ashore and seeking a chance to play his own strumpet. The search for talent, the discovery, pursuit, encounter, rebuff, the persuasion, the going to a show, the strolling home, the pass on the doorstep rewarded with a black eye.

Another time he'd reversed the role, become a plump blonde followed by a hungry sailor. Wordlessly, but with motions, gestures, posturings and facial expressions equal to if not better than speech, he had taken them on the night's prowl ending with the fight on the doorstep.

This time he pretended to be a bashful sculptor shaping a statue of Venus de Milo with invisible clay. Piling up a column of what wasn't there, he hesitantly stroked it, nervously patted it, embarrassedly smoothed it into near-visible form. He rolled two cannon-balls, plonked them on her chest while covering his eyes, rolled two pills and shyly put them on top, delicately molded them into shape, glanced frightenedly around, then bestowed a hurried kiss on his own handiwork.

It took him twenty hilarious minutes to make her almost, but

not quite, complete, at which point he took idiotic alarm. He scanned the horizon, looked out the door, peered under the table to insure that they two were alone. Satisfied yet full of embarrassment, he made a faltering approach, withdrew, plucked up fresh courage, lost it again, had a spasm of daring that failed at the critical moment.

Vail offered pungent advice while Nilsen sprawled in the next seat and held an aching diaphragm. Summoning up everything he had in an effort to finish the job, Bertelli made a mad rush at it, fell over his own feet, slid on his face along the steel floor-plates. Nilsen made choking sounds. Stupidly enraged with himself, Bertelli shot to his feet, drew his bottom lip over the tip of his nose, waggled his bat-ears, closed his eyes, made one violent stab with a forefinger—and provided Venus with a navel.

For days afterward, they chuckled over that performance, making curvaceous motions with their hands or prodding each other in the paunch at odd moments. The ghostly Venus stayed good for a laugh until . . . the Sun came up.

MAKING another of his frequent checks late in the eighth day, Marsden found that one of the transparencies now co-



incided dot for dot with focal point two inches leftward of an enlarged pink glow. He let go a howl that brought the rest of the crew racing to the bow.

Sol was identified. They looked at it, licked lips over it, looked again. Four years in a bottle is like forty years in the star fields—and they had been bottled too long. One by one they visited Kinrade's cabin and exulted over the superstition on the wall.

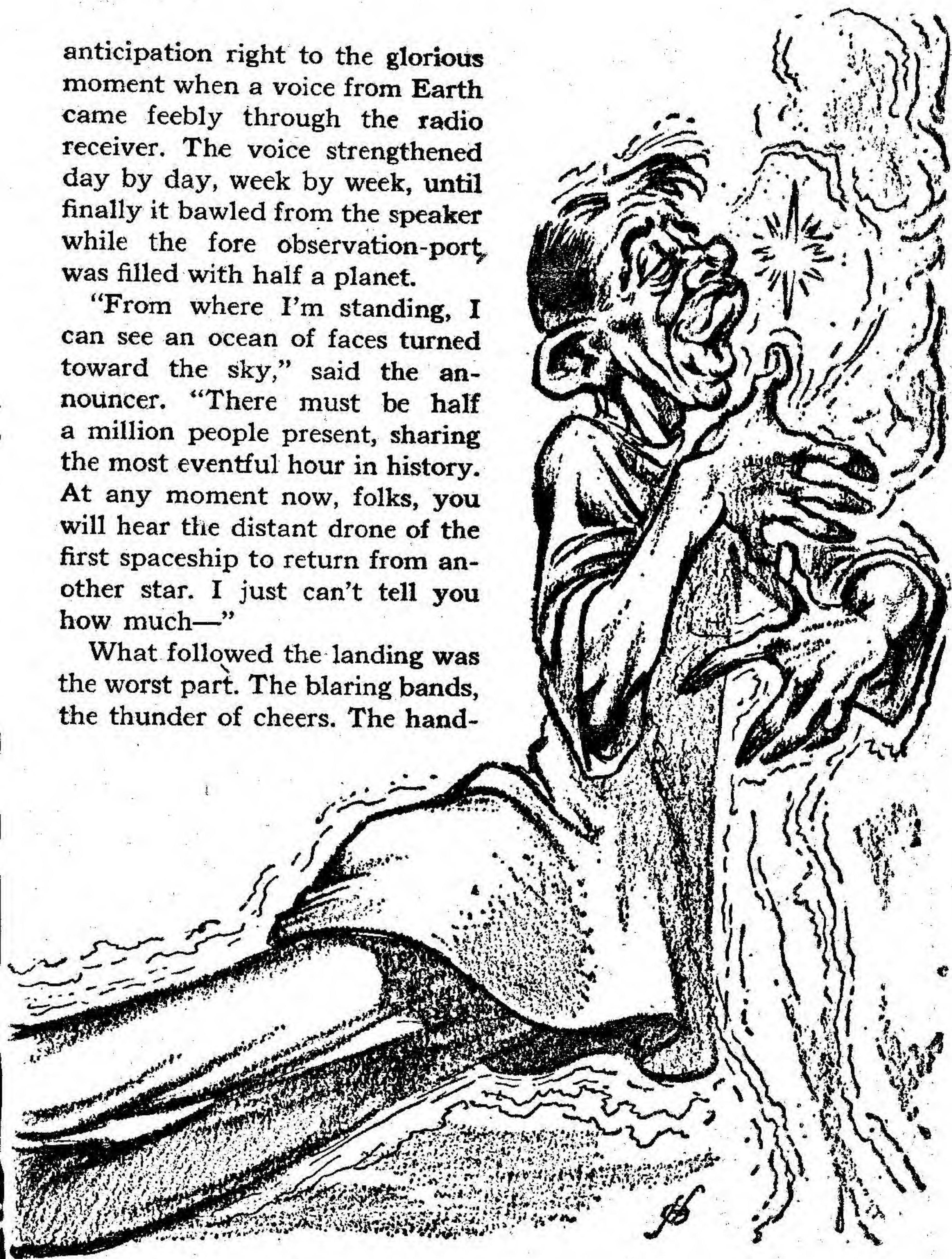
THIRD TIME DOES IT!

Morale boosted way up. The ship's drumming and thrumming somehow lost its hellishness and took on a heartening note of urgency. Jangled nerves accepted the new and different strain of

anticipation right to the glorious moment when a voice from Earth came feebly through the radio receiver. The voice strengthened day by day, week by week, until finally it bawled from the speaker while the fore observation-port was filled with half a planet.

"From where I'm standing, I can see an ocean of faces turned toward the sky," said the announcer. "There must be half a million people present, sharing the most eventful hour in history. At any moment now, folks, you will hear the distant drone of the first spaceship to return from another star. I just can't tell you how much—"

What followed the landing was the worst part. The blaring bands, the thunder of cheers. The hand-



shakes, speeches, the posing for press photographers, newsreels, television scanners, the cameras of countless frantic amateurs.

It ended at last. Kinrade said farewell to his crew; felt the bear-trap grip of Nilsen's hand, the soft, frank clasp of Aram, the shy, self-conscious touch of Bertelli.

Looking into the latter's mournful eyes, he said, "The authorities will now start howling for all the data we've got. I suppose you've finished your book."

"What book?"

"Now, now, don't kid me." He offered a knowing wink. "You're the official psychologist, aren't you?"

He didn't wait for an answer. While the others busied themselves collecting personal belongings, he got the log and the file of reports, took them to the Administration Building.

LOOKING no different for the passage of time, Bancroft sat paunchily behind his desk, said with satirical satisfaction, "You are now looking at a fat man wallowing in the joys of promotion and higher salary."

"Congratulations." Kinrade dumped the books and sat down.

"I would swap both for youth and adventure." Casting an anticipatory glance at what the other had brought, Bancroft went

on, "There are questions I'm bursting to ask. But the answers are hidden somewhere in that pile and I guess you're in a hurry to go home."

"A 'copter will pick me up when it can get through the overcrowded air. I have twenty minutes to spare."

"In that case I'll use them." Bancroft leaned forward, eyes intent. "What about the first two ships?"

"We searched seven planets. Not a sign."

"They hadn't landed or crashed?"

"No."

"So they must have gone on?"

"Evidently."

"Any idea why?"

Kinrade hesitated, said, "It's a hunch and nothing more. I think their numbers were reduced by accident, sickness or whatever. They became too few to retain control of the ship." He paused, added, "We lost three men ourselves."

"Tough luck." Bancroft looked unhappy. "Who were they?"

"Weygarth, Dawkins and Sanderson. The first died on the way out. He never saw the new sun, much less his own. The story is there." He gestured toward the reports. "The other two were killed on the fourth planet, which I've established as unsafe for human habitation."

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"What's wrong with it?"

"A big and hungry life-form exists under the surface, sitting with traps held open beneath a six-inch crust of soil. Sanderson walked around, fell into a red, sloppy mouth four feet wide by ten long. He was gulped from sight. Dawkins rushed to his rescue, but dropped into another." His fingers fumbled with each other as he finished, "There was nothing we could do, not a damned thing."

"A pity, a great pity." Bancroft shook his head slowly from side to side. "How about the other planets?"

"Four are useless. Two are made to measure for us."

"Hah, that's something!" He glanced at the small clock on his desk, continued hurriedly, "And now the ship. Doubtless your reports are full of criticisms. Nothing is perfect, not even the best we've produced. What do you consider its most outstanding fault?"

"The noise. It could drive you out of your mind. It needs cutting out."

"Not completely," Bancroft contradicted. "There is psychic terror in absolute silence."

"All right. Then it needs cutting down to more endurable level. Try it yourself for a week and see how you like it."

"I wouldn't. The problem is

being beaten, although slowly. We have a new and quieter type of engine already on the test-bench. Four years' progress, you know."

"We need it," said Kinrade.

BANCROFT went on, "And what do you think of the crew?"

"Best ever."

"They ought to be. We skimmed the world for the cream—nothing less was good enough. Each man was tops in his own particular line."

"Including Bertelli?"

"I knew you'd ask about him." Bancroft smiled as if at a secret thought. "You want me to explain him, eh?"

"I've no right to insist, but I'd certainly like to know why you included such a dead weight."

"We lost two ships," said Bancroft, looking serious. "One could be an accident. Two were not. It's hard to believe that an exceptional kind of breakdown or a collision with a lump of rock or some other million-to-one chance would occur twice running."

"I don't believe it myself."

"We spent years studying the problem," Bancroft continued. "Every time we got the same answer: it wasn't due to any defect in the vessels. The cause lay somewhere in the human ele-

ment. Short of a four-year test on living men, we could do no more than speculate. Then one day the likely solution popped up by sheer chance."

"How?"

"We were in this very room, beating our brains for the hundredth or two-hundredth time, when that clock stopped." He indicated the timepiece facing him. "A fellow named Whittaker from the Space Medicine Research Station wound it up, shook it, got it going. Immediately afterward a brainwave hit him, kerplonk!"

Picking up the clock, Bancroft opened its back, turned it toward his listener.

"What do you see?"

"Cogs and wheels."

"Nothing else?"

"Couple of coiled springs."

"Are you sure that is all?"

"All that matters," declared Kinrade, having no doubt.

"Wrong, dead wrong," said Bancroft, positively, "You have made precisely the mistake we made with ships number one and two. We built giant metal clocks, fitted them with human cogs and wheels accurately designed for their purpose. Cogs and wheels of flesh and blood, chosen with the same care as one would choose parts for a fine watch. But the clocks stopped. We had overlooked something that Whittaker suddenly thought of."

"Well, what was it?"

Bancroft smiled and said, "A little oil."

"Oil?" exclaimed Kinrade, sitting up.

"Our error was natural. In a technological age, we technicians tend to think we're the whole cheese. We aren't. Maybe we're a very considerable slice, but we are not the lot. Civilization is composed of others also, the housewife, the taxi driver, the dime store salesgirl, the postman, the hospital nurse, the corner cop. It would be a hell of a civilization built solely on boys pushing studs of computer-machines and without the butcher, the baker, the candlestick-maker. That's a lesson some of us needed to learn."

"You've got something," Kinrade agreed, "but I don't know what."

"We had another problem in our laps," said Bancroft. "What sort of oil must you use for human cogs and wheels? Answer: human oil. What kind of individual specializes in being oil?"

"And you dug up Bertelli?"

"We did. His family has been oil for twenty generations. He is the present holder of a great tradition — and internationally famous."

"Never heard of him. I suppose he traveled with us under a false name?"

"He went under his own."

"I didn't recognize him," Kinrade persisted. "Neither did anyone else. So how can he be famous? Or did he have his face altered by plastic surgery?"

"He changed it completely in one minute flat." Getting up, Bancroft lumbered to a filing cabinet, opened it, sought through several folders. Extracting a full-plate glossy photography, he slid it across the desk. "All he did to his face was wash it."

Picking up the picture, Kinrade stared at the chalk-white features, the cone-shaped hat set rakishly on a high, false skull, the huge eyebrows arched in perpetual surprise, the red diamonds painted around the mournful eyes, the grotesque, bulbous nose, the crimson ear-to-ear mouth, the thick ruff of lace around the neck.

"Coco!"

"The twentieth Coco with which this world has been blessed," Bancroft confirmed.

Kinrade had another long look. "May I keep this?"

"Certainly. I can get a thousand more copies any time I want."

KINRADE emerged from the Administration Building just in time to see the subject of his thoughts in hot pursuit of a ground-taxi.

With a shapeless and hurriedly packed bag swinging wildly from

one hand, Bertelli went along in exaggerated, loose-jointed bounds with big boots rising waist-high, while his long neck protruded forward and his face bore a ludicrous expression of woe.

Many a time the onlooker had been puzzled by the fleeting familiarity of one of Bertelli's poses or gestures. Now, knowing what he did know, he recognized instantly the circus jester's classic anxiety-gallop across a sawdust ring. To make it complete, Bertelli should have been casting frightened glances over one shoulder at a floating skeleton attached to him by a long cord.

Bertelli caught up with the taxi, bestowed an inane smile, slung his bag inside and clambered after it. The taxi whirled away with twin spurts of vapor from its underbody jets.

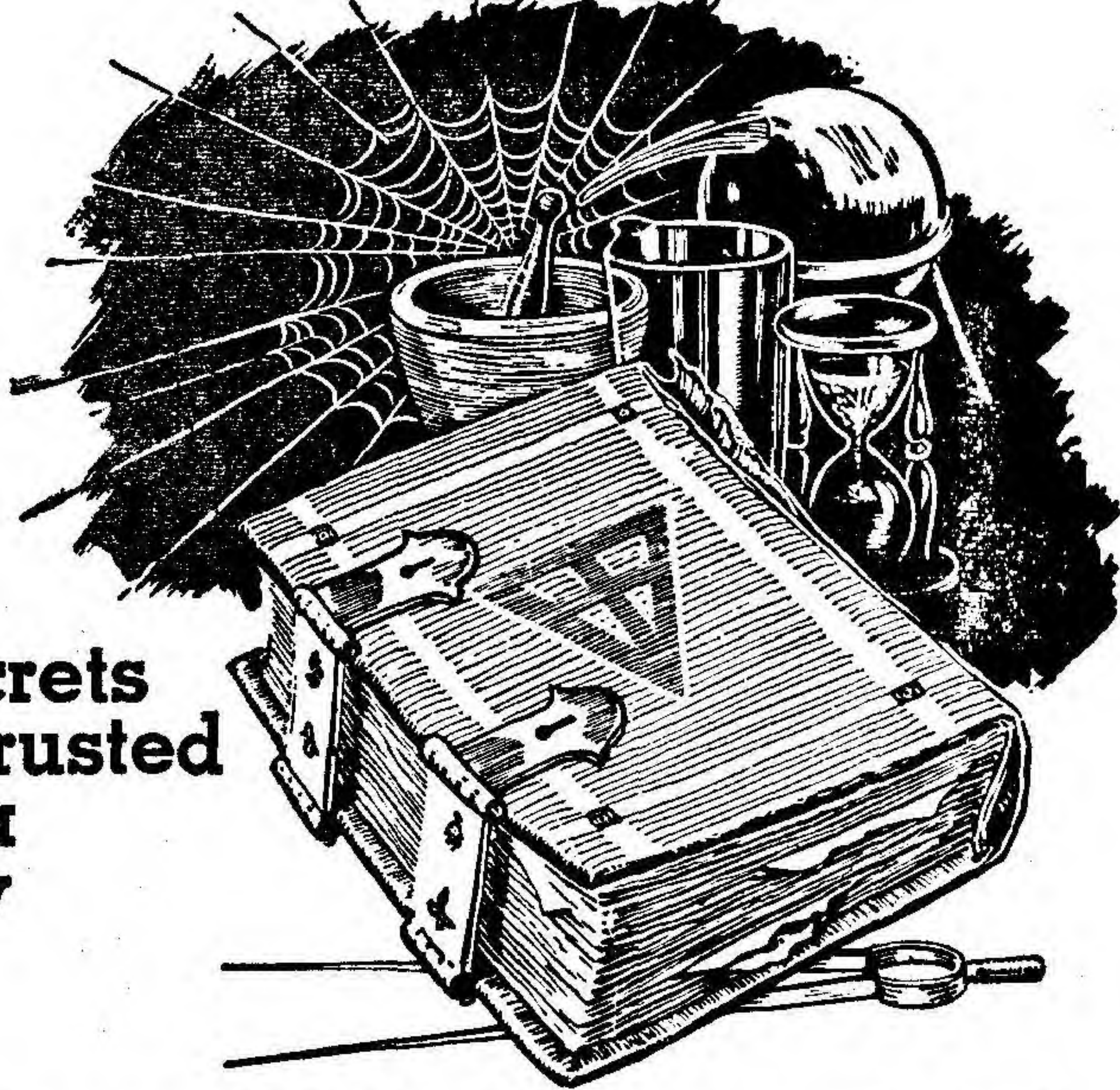
For a long minute, Kinrade stood looking absently at the poised spaceships and the sky. His mind was viewing the world as a gigantic stage on which every man, woman and child played a wonderful and necessary part.

And holding the whole show together with laughter, exaggerating temper and hostility and conflict into absurdity, was the clown.

If he'd had to assemble the crew, he couldn't have picked a better psychologist than Bertelli.

—ERIC FRANK RUSSELL

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